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THE FARM MAGAZINE

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Home and Family Section:

In This Issue

This issue of Country Guide seems to be devoted to casting out standards of farm operation and ideas of farm life that have taken years to build.

For instance the veterinarian has traditionally gone to the cow. The good stockman was the one who called the vet when he needed him. On page 20 we tell of stockmen who "Haul the Cow to the Vet."

The poultry industry, already severely shaken by developments of the last 10 years, is about to get another jolt. Peter Lewington describes a new method of improving profits. The idea is to lock the chicken house door. This is not to prevent midnight raids but to keep daytime visitors out. They could be carrying profit-stealing diseases into the flock.

It is a tradition that the good farmer and his family are hard working people with little time for recreation and the finer things of life. In "The 69-cent Miracle" we tell of a county library whose books are read by the ton. And in "Ice Fishin' Is Nice Fishin' Pete Williams offers some firsthand advice about a fine winter sport. In fact we wonder if we aren't breaking down another tradition, that writers are a hard working lot with no time to go fishing themselves.

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COVER: This wintry scene is on Sherman Ewing's SN Ranch in Alberta's Porcupine Hills. The cattle are from stock which has been under performance test for 25 years.-Cliff Faulknor photo.

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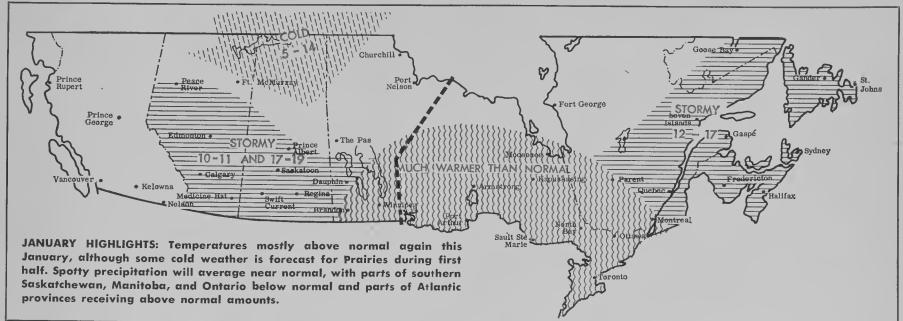
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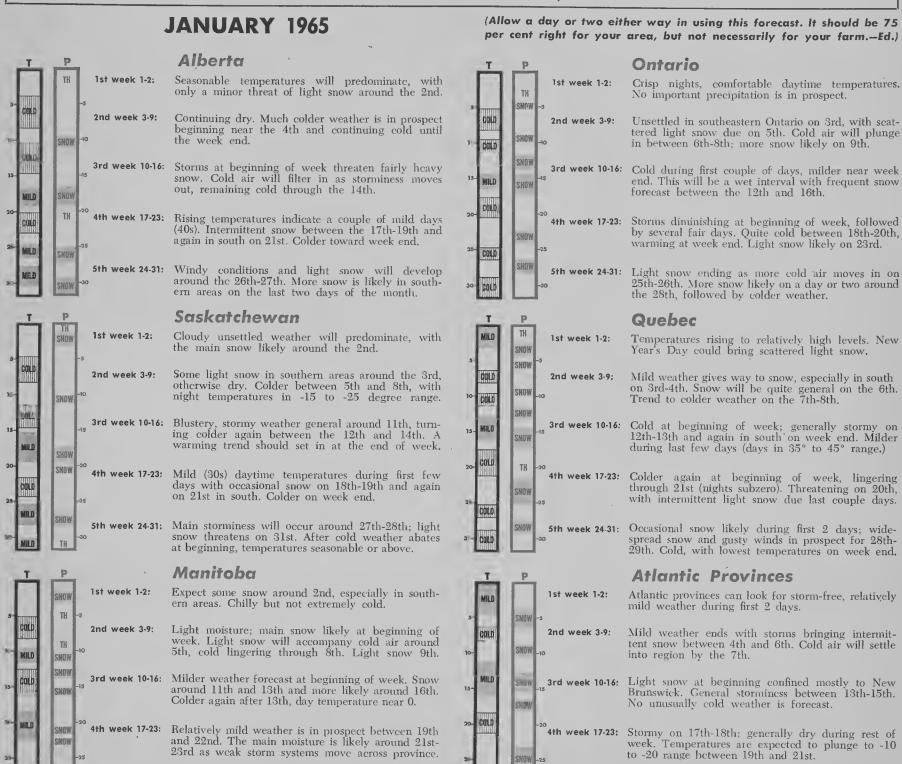
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Prepared by IRVING P. KRICK ASSOCIATES





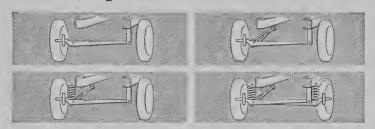


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Editorials

Face the Issues

IT ISN'T SURPRISING that this year's Federal-Provincial Farm Outlook Conference in Ottawa in late November was a quiet affair. As Minister of Agriculture Hon. Harry Hays pointed out, farm cash income is at record levels. Even realized net income in agriculture will reach \$1,630 million this year, he predicted, 20 per cent above last year. In the past 15 or 20 years, the physical volume of farm production has increased by 40 per cent. Agriculture has made huge strides in boosting output and improving its efficiency. It is now reaping some of the benefits.

Against such a background, it is understandable that the delegations including the ministers and deputy ministers of agriculture from most of the provinces, and representatives from the two major farm organizations, didn't raise many contentious issues. During the brief part of the conference which was not held behind closed doors, Mr. Hays pointed to the legislation his government has enacted to deal with some of the obvious trouble spots in farming. The Canadian Federation of Agriculture devoted most of its attention to the World Food Program, and the need to develop and expand the ARDA program. The various provincial ministers had very little to say. The Farmers Union did try to put its finger on the real issue

facing agriculture, suggesting that the Conference itself should be altered for future years to deal with production and marketing matters.

Anyone observing the open part of this conference could assume that there are few serious problems in the farm field today.

Yet granting agriculture's prosperity, this hardly means that the time for vigorous leadership is past. To imagine that the nation's biggest and maybe its most dynamic primary industry can now rest on its laurels is to hide one's head in the sand. The healthiest of industries, whether it is mining ores, or manufacturing motor cars, continues to plan for the future.

While statistics show agriculture is in better shape than ever before, it is doubtful if agriculture was ever undergoing such great change. Individual farmers today face more difficult decisions than they ever faced.

An official of a large feed company recently stated that the poultry industry, despite increasing efficiency, seems to have reached a dead end, and those who have money invested will soon withdraw it if some solution is not found

Today, just about every provincial government in this country has an extension program exhorting farmers to produce more. Govern-

ments are making more credit available to farmers for expansion. Farmers might well ask today—has anyone at policy-making level thought much about marketing the produce that is likely to come to market as a result of these programs? Surely, here was a subject for vigorous discussion at the meeting of farm leaders

What about co-ordinating this country's agricultural production? Should the prairies, which are now pushing hard to get back into the hog business, move in this direction, or would their resources be better spent in, say, setting up cattle feedlots? It is the federal government which has the research resources to try to answer such questions, but there was no indication at the conference that provincial governments wanted it to find the answers. Yet farmers might well wonder whether they will be throwing their efforts into costly and wasteful competition with farmers in other provinces who might well have some significant but unrecognized advantages.

Farmers might ask, is there an unlimited demand for food? Or are we rapidly coming to a time when, somehow or other, production and marketing must be co-ordinated? Can a farmer really invest big money in his farm operation without some assurance of a decent market for his produce, not only in the short term, but in the long term as well.

There was never a more urgent need for clear and courageous thinking on the part of farm leaders than right now. Maybe these real questions facing agriculture were debated vigorously behind closed doors at this year's federal-provincial conference. If they were, farmers will be looking for some indication of this in the days ahead.

Farmers and the Poultry Industry

DESPITE THE TRENDS to specialization and integration in the poultry industry in recent years, there is plenty of reason to believe that there is still a place for the farm-sized poultryman.

One article in this issue describes how a farmer in Saskatchewan continues to develop and expand his specialized egg enterprise, and to sell the eggs at retail himself, even though egg production in the province has gone through a rapid decline. Another article from New Brunswick tells how a new poultry processing plant has opened the door of opportunity to farmers there, and how one farmer has taken advantage of it. A report from Saskatchewan tells how the poultry industry there is planning to regain lost ground.

But despite the rapid developments of recent years, it is now becoming obvious that the pattern of the poultry industry has failed to set. The developments have solved some problems, only to create new ones.

Vice-president J. M. Appleton, of Quaker Oats Company of Canada, stated recently, "The poultry industry and particularly the broiler division has reached a stalemate in progressive development, and is beginning to decline." He predicts that if reward for effort is not soon forthcoming, the capital resources which have been invested in it will be withdrawn and put to other use. Initiative would be destroyed and technological progress delayed.

The poultry industry is still in a state of uncertainty, but this in itself need not be the signal for more farmers to abandon it.

Frank Payne, who is Chief, Markets and Merchandising, Canada Department of Agriculture, recently looked carefully at the industry as it is today, and made several pertinent observations.

He said that above all else, the industry must become co-ordinated. He said that the processor is the kingpin in the chain of command, and he must be big enough to deal effectively with food retailers, and must adopt rigid planning to meet customer's needs.

In other words, the customer is king.

Payne went further. He suggested that smaller operators in the industry can compete by doing what their competition is doing only doing it a little better. He said there definitely is room for the little fellow and better yet a combination of little fellows. Collective action is necessary. This might mean integration, merger, or co-operative sales organizations, but it must fill the need for increased capital, buying power, and upgrading of management, and result in gains in market strength as well as reducing unit operating costs. He said that by doing things a bit differently, a little better, with more of a personal touch, the owner of the small farm can succeed in that area of the food market not controlled by the chains.

It is apparent that the old farm freedom to produce products of any quality at any place at any time, with the expectation of being able to sell it satisfactorily, is rapidly being lost. Poultrymen, like producers of an increasing number of crops, must find their markets and must produce to the needs of that market. If the poultryman could ever be independent of the market-place, he cannot be that way today.

Having said this, there still seems to be room in the poultry industry for farmers who recognize the opportunities in it today.

Co-ordinate the Swine Industry

THIS COUNTRY'S SWINE INDUSTRY, which in recent years has allowed other segments of farming to outstrip it in efficiency, has now begun to move ahead. New housing and feeding systems have been developed. Better breeding programs are resulting in stock that perform more efficiently and produce better pork.

However, these developments have created their own problems. The multiplicity of swine improvement plans that have sprung up across the country have frequently been unco-ordinated. Too often, the advice being offered to producers on how to deal with certain management or disease problems is contradictory.

An example can be found in the term "certified," which in Ontario denotes the health status of the pigs, while in Manitoba it denotes their breeding caliber.

A particular problem has arisen in dealing with atrophic rhinitis. This disease is deemed to be present if there is atrophy of the turbinate bones, but its cause is still not known. The term Specific Pathogen Free, is commonly used to designate hogs that are free of both atrophic rhinitis and virus pneumonia. Actually, of the SPF pigs sold in Ontario in 1964, some were free of both atrophic rhinitis and virus pneumonia and some had atrophic rhinitis.

It is apparent now that the efforts at swine improvement and the various government-backed swine improvement plans that are being developed across the country should be co-ordinated.

There is a need also for more specific terms in denoting quality stock. When governments are setting up programs dealing with swine diseases, it might be better for them to designate the (Please turn to page 41)

Merry Christmas and Happy New Year to Our Readers



WHEAT EXPORTS, after a fast start, are now lagging behind last season's impressive pace, foreshadowing a probable build-up in carryover stocks. World wheat acreage and output are on the way up-a sign of stiffer competition ahead. Some reduction in acreage next spring would seem the wise course.

FEED GRAIN CARRYOVER STOCKS will shrink by about one-quarter by the end of the crop year, despite average yields in 1964. An extremely tight position is in prospect for next winter if 1965 production is not increased.

SOYBEAN GROWERS appear headed for a good year. Production established a new record, and prices will be only slightly lower than a year ago, with a good chance of an increase as the marketing season progresses.

DURUM WHEAT PRICES will not register the normal premium over bread wheat prices until excessive surplus supplies are whittled down. This may take two seasons of low production. world dairy surplus, a problem since the mid-fifties, has been spirited away into the hungry mouths of an expanding population. In many countries, demand has outpaced output, with the result that butter and non-fat milk prices are on the rise.

1964 CORN CROP broke all records by a wide margin, showing this crop will respond to good management, given some co-operation from the weather. No trouble is expected in absorbing the increased output at prices comparable to last season.

CASH FLOW to agriculture in 1965 will be fairly rewarding, although below last year's record amount. The decrease will be due mainly to the expected smaller marketings of grain

POTATO PRICE PROSPECTS appear good for the winter months, as exports to the United States will be up. However, early plantings there will likely be increased, limiting further price rises during the spring and summer months.

canadian Butter Surplus has dissolved during the past year and stocks are near manageable levels. Shortages are not likely since the removal of the subsidy would cut back consumption

SUGAR PRICE boom is about over, due to increased world production, so expect lower returns from sugar beets in the years ahead.

A Second Look at the Prairie Swine Industry

Ready to sell the pigs and turn the hog barn into a machine shed? Before you do, consider the possibilities seen for the hog industry

TWO HOG CONFERENCES this fall offer some promise that Sas-katchewan and Manitoba, recently overshadowed by Ontario production, are about to make a comeback in the swine industry.

Saskatchewan Minister of Agriculture, the Hon. A. H. MacDonald called representatives to a conference to discuss industry problems and to recommend programs for developing a bigger and more profitable Saskatchewan hog industry.

In Manitoba the Manitoba Swine Improvement Council called a Swine Improvement Conference at the Brandon Agricultural Extension Center. Producers were told of the competition between meats in the retail market and of new developments in research, selection, breeding, feeding, health, and management that would help them to produce better pork cheaper.

At the Saskatchewan conference the delegates first heard a description of the present state of the industry. Only 122 farms in the province reported over 178 hogs in the 1961 census, hog production had dropped from 908,000 in 1959 to 464,000 in 1963, and Saskatchewan hog processing facilities were only handling half their one shift capacity. The industry had not made use of im-

provements in management and breeding that could lower the cost of production by \$4.50 per hog and make Saskatchewan pork more competitive in the red meat markets of Canada, the U.S. and Northern Europe.

Briefs outlined the many industry problems. They described the tendency of farms to avoid hog production in preference for wheat, the dependence of hog production on wheat prices and supplies, and the fluctuations in hog production that follow shifts in the wheat economy. Production weaknesses such as lack of specialization, low feed efficiency, poor sanitation, low quality, and failure to take full advantage of good quality breeding stock were listed. Government programs related to hog promotion, hog quality, and grading standards were scrutinized and criticized. The reluctance of credit agencies to support up-to-date enterprises was mentioned.

The briefs proposed a variety of solutions. The most popular suggestion was a central breeding station to develop improved strains of hogs. The station would be stocked by top ROP swine, screened out of ROP records by computer. There were also suggestions that the cost of this could be met by a levy on

hogs or by redirecting government funds that are now spent in some less satisfactory programs. An elite breeder program was proposed to provide a group of top breeders to multiply the progeny of the central station. Crossbreeding to make full use of the potential of good purebred stock was also discussed.

Specialization was offered as a solution to some problems. Larger operations specializing in breeding, weaning, or feeding were forecast. For this expansion improved credit facilities will be needed. A note of caution was offered against rapid expansion without concern for markets.

Requests aimed at governments were for new grading standards that more accurately measure cutout value of carcasses and a co-ordinated producer education program.

The conference made these recommendations:

- Greater specialization
- Larger enterprises
- More credit
- A complete extension program
- A central breeding station
- An elite swine herd programA levy to finance the station

A variety of research programs were asked for. These included research on feed grain varieties, feeds, nutrition, disease prevention, production methods and equipment, economics of hog production, and marketing methods.

Speakers at the Manitoba Swine Improvement Conference stated the results that are possible if the industry makes use of available improvements. Producers were shown the economic gains possible from increasing litter size, we an ing

weight, growth rate, feed efficiency, and carcass quality.

Dr. W. Combs, Animal Science Department, University of Alberta, described management practices which would increase pigs marketed per year per sow from 12-15 up to 17. This and improved feed efficiency would increase profits as much as doubling grade A's from 35 per cent to 70 per cent. Crossbreeding, weaning at 3 weeks, breeding on the first heat, and better sow nutrition are also techniques that increase the number of pigs marketed. Herd health is important. Dr. Combs told of an outbreak of gut edema that reduced pigs marketed from 8.6 to 5.6 per litter in one herd.

Better feed efficiency is another way to reduce costs. Feed efficiency is heritable and will be improved by proper selection. In the meantime better feeding will reduce feed requirements by 50-100 lb. per hog.

Speakers outlined a simple selection program to improve carcass quality, rate of gain, and feed efficiency. Select for lower age at 200 lb. to improve rate of gain, and feed efficiency. Select with a back fat probe to improve carcass quality. This is possible because fat depth and carcass quality are related. Any selection for more factors will slow up or stop the improvement.

Both conferences dealt realistically with the problems of the industry. Both conferences reflected the confidence of the participants that these problems would be solved provided an aggressive and progressive approach was taken. Prairie hog production could regain its place in the national agricultural economy. V

News Highlights

As seen at the 1964 Federal-Provincial Agricultural Outlook Conference, the outlook for cash farm income in 1965 can be summarized as follows: cattle and hog marketings are expected to be larger in 1965 and total returns for these products should be higher than in 1964; increased total returns for dairy products are also anticipated in 1965; there will likely be a reduction in wheat deliveries by farmers next year. As a result, total cash income from farming operations in 1965 is expected to be slightly below this year's record level.

In the 15-year interval between the periods 1945-49 and 1959-63 the physical volume of agricultural production increased by 40.4 per cent in Canada, reports Agriculture Minister Harry Hays. Between these periods, the actual number of farms declined and as a result individual farmers on the average are producing over 40 per cent more now than they did 20 years ago.

According to the United States Department of Agriculture, farmers can look forward to another year of expanding demand for farm products. General economic activity will probably continue rising, it says, perhaps not apace with the robust gain indicated for 1964 but enough to keep national output, employment and consumer income climbing. Export markets also may stay strong.

Chairman of Manitoba's first potato marketing commission will be Ken Todd, president of the Fruit & Vegetable Wholesalers Association of Manitoba. The five members of the new commission, which has been empowered to supervise the orderly marketing of table and seed potatoes, represent growers, retailers and wholesalers.

Agriculture ranks first among Canada's primary industries in terms of net value of production. It contributes about 37 per cent of the total net income of these industries. This information is included in a report released by the Economics Division of the Canada Department of Agriculture. The report says the net value of production from agriculture is about 10 per cent of the total for all industries.

It was reported in late November that a futures trade in live beef cattle was to begin November 30 on the Chicago Mercantile Exchange and that futures trading in dressed beef carcasses was expected to begin within a few weeks. A successful futures trade has been developed for frozen pork bellies over the past 3 years.

A new Manitoba general farm organization to be known as the Manitoba Farm Bureau is to be set up. It will be primarily a provincial co-ordinating organization of existing agricultural producer groups. Membership in the Bureau will be provincial farmer educational groups, commodity producer groups and co-operatives. Existing farm groups

will be invited to elect representatives to the Bureau on the basis of the number of farm people they represent.

The present low volume of egg production in Saskatchewan reflects an unsatisfactory marketing situation, in the view of Saskatchewan Farmers Union. The SFU recommends: (1) a deficiency payment program for eggs; (2) an altered grading system to provide for the sale of Grade A quality eggs by weight rather than by the dozen; (3) a national egg marketing board.

In presenting its brief to the Federal-Provincial Agricultural outlook conference, the National Farmers Union suggested that the meeting should become a production and marketing conference. The brief went on, "We believe there is a growing need for co-ordination between provincial and federal governments in the advice they give producers concerning production requirements. If in Canada we are to follow a policy of co-operative federalism, it is important that the provinces and Federal Government follow a common policy toward agriculture. The brief also stated, "Producers do not as yet have an effective National Farm Products Marketing Act through which they may bargain effectively for adequate prices. Such legislation is necessary before the agricultural industry in conjunction with other segments of our society can plan national production and marketing in line with domestic and export needs. This joint responsibility of Federal and Provincial Governments requires immediate consideration.'

For the first time in many years the predominating grade of wheat is No. 2 Northern but No. 3 Northern, says M. J. Conacher of the Board of Grain Commissioners. In addressing the annual meeting of United Grain Growers Ltd., he estimated that 39 per cent of the red spring wheat will grade No. 4 Northern and lower with 16 per cent of the crop grading No. 5, No. 6 and Feed. He also said he was disappointed with the Tanka variety of rapeseed this year. It was recommended for its yield and seed size, but instead of being yellow inside, it is green. He said Canadian rapeseed has been criticized in export markets as being immature and Tanka is the conspicuous offender this year.

J. E. Brubaker has been appointed program supervisor of the Engineering Extension Service of the Ontario Department of Agriculture. He will plan and co-ordinate engineering programs and act as liaison with engineering science departments of the OAC and the agricultural schools at Ridgetown and Kemptville.

The general malting quality of the higher grades of the 1964 barley crop is good, though the amount is very small this year, according to studies made by the Board of Grain Commissioners' Laboratory. Slow vehicle emblems and fluorescent flags will be introduced to Alberta farmers during the next few months by provincial 4-H groups.

Prospective nimrods in Alberta are being trained. The Fish and Wildlife Branch of the Alberta Department of Lands and Forests has instituted a hunter training program. Several hundred students have taken the course.

Australia produced a record wheat crop of nearly 328 million bushels in 1963-64.

The average oil content of the 1964 flaxseed crop is about the same as last year while in the new rapeseed crop it is nearly 1 per cent higher this year.

Charges for marketing domestic farm-originated foods in the United States are likely to rise 1 or 2 per cent in the year ahead, predicts the United States Department of Agriculture. These charges increased 2 per cent each year from 1953 to 1963, but increased at less than 1 per cent during 1963.

The United States Department of Agriculture reports that the family farm - where the farmer and his family do most of the work - still reigns, mainly because farm operators have been quick to adopt new and improved technology which enabled them to handle larger units without hiring additional help. Census data shows that family farms accounted for over 70 per cent of all farm marketings in 1959 compared with about 66 per cent in 1944. Farms continue to get bigger. Real estate market values averaged \$48,000 per farm in 1964 compared with \$33,600 per farm in 1959. This reflects both larger farms and higher prices.

Although 90,000 individual farm, community and large water development projects have been built on the Prairies with PFRA assistance since 1935, the potential for water development has still only been scratched. According to Mr. Ron Whitton of PFRA, the demand for water projects is increasing. Many original structures are proving inadequate and the farmer must now

have them enlarged or have new projects built. In the Parkland area with its rapidly expanding livestock industry and a trend to greater specialization in crop production, there is an increasing need for more dependable and adequate water supplies. PFRA offices will assist farmers to plan water conservation structures and will extend financial aid on approved projects.

Reg Kenway
of Onoway, Alta.,
scooped out this dugout
near his feedlot, then
dug a channel to it
from a nearby lake.
It provides water for
the cattle, and will be
used for irrigating a
hay field as well



Milk sales are rising. M. R. Mc-Crea, president of the National Dairy Council, reports that commercial sales of all fluid milk products in Canada showed a total increase of 12 per cent from 1958 to 1963, somewhat above the rate of population growth.

President H. J. Andresen of the Manitoba Farmers Union has welcomed the Federal Government's action in amending the Crop Insurance Act. The amended act will allow provincial governments to reinsure against heavy losses in the event of a general crop failure.

Research at the Indian Head Experimental Farm in Saskatchewan showed that when snowberry and wolf willow in pastures were destroyed, forage production increased to 958 lb. per acre from only 262 lb. per acre. Brush grows best on the most productive land in the pasture. These weeds can be killed with chemical sprays.

The Government Bill providing for the extension of credit to farm machinery syndicates has been enacted by Parliament. The purpose of the act is to assist farmers in reducing overhead costs of farm machinery and equipment by providing credit to organized groups (syndicates) which will permit them to jointly purchase and use such machinery and equipment in their farming operations. The credit program involved is to be administered by the Farm Credit Corporation.

The Ayrshire bull Selwood Betty's Commander, bred in Canada by Stansell Bros., Aylmer, Ont., and now owned by New York Artificial Breeders' Co-operative, has the highest proved superiority for A.I. production for any bull of any breed in North America. On the average, his 243 daughters that are production tested have produced 1,155 lb. of milk and 71 lb. of fat more than daughters of other bulls in the same herd.

Under leadership from the British Government and the Canada Department of Trade and Commerce, Canadian demonstration homes have been built in Britain to demonstrate the techniques, advantages and suitability of Canadian wood frame house construction in Britain and to promote the sale of Canadian lumber and plywood there. Six houses have been built in various parts of the country and these are remaining open for inspection by the public and by people involved in house building in Britain. Costs of this project have been shared by the Canadian Government, the British authorities, and Canadian lumber associations and housing component manufacturers.

FREE TRADE FOR BEEF

Two major segments of Canada's beef industry have gone on record in favor of studying possibilities of establishing a free trade area for cattle and beef shipments between the United States and Canada. The recommendation came from cattle producers and meat packers who attended a meeting held in Toronto at the time of the Royal Agricultural Winter Fair.

A statement issued jointly by J. Cross, president of the Council of Canadian Beef Producers, and J. Yarem, president of the Meat Packers Council of Canada, declared that the two organizations would pursue an objective of unrestricted beef trade between Canada and the U.S. The beef business in this country has long been recognized as one that operates essentially on a two-way street in a North American economy. Removal of all trade barriers, both tariff and non-tariff, would benefit both countries, said the two industry spokesmen.

MASTITIS CONTROL IN ONTARIO

Ontario's full-fledged mastitis control program swung into high gear on December 1, and is now available to dairymen across the province. This is the logical evolution from the 2-year pilot project and the workshop sessions. (See Country Guide, Feb.

1964, "An Answer to Mastitis," and May 1964, "Help Yourself to Mastitis Control.")

Dr. Ken McEwen, director of the Communicable Disease Division of the Ontario Veterinary Services Branch, is in charge of the program. The success of the whole scheme rests heavily on teamwork between the Division headed by McEwen, and the Regional Veterinary Laboratories at Kemptville, New Liskeard, Guelph, Brighton and Ridgetown, practicing veterinarians and the participating farmers. Farmers who wish to enrol their herds may obtain application forms from their own veterinarian or from their milk fieldman; farmers should ask for V.S.B. form 101. The fee is \$2.25 per cow. Experience has shown that this is one of the best investments a dairyman can make.

Facilities for servicing herds is limited and it is possible that in some areas farmers may have to wait for a vacancy. However, the writing is on the wall; as far as possible the control of mastitis will be a voluntary measure, but eventually it will become mandatory in Ontario.—P.I...

CROP INSURANCE LEGISLATION ENACTED

Amendments to the Crop Insurance Act which has been enacted by Parliament in Ottawa have been acclaimed across the country. Manitoba's Premier Duff Roblin has said that full crop insurance coverage for all Manitoba is considerably nearer as a result of the amendments. He says the reinsurance bill incorporates almost word for word the proposal that Manitoba has been advocating since 1960. He estimates that crop insurance coverage which is now available in one-third of his province's agricultural lands on a test area basis can be extended in a few

years to the entire farm area if premiums remain reasonable.

Purpose of the amendments is said by the Canadian Federation of Agriculture to be two-fold. First they provide authority for the Federal Government to reinsure provincial crop insurance plans in return for an annual reinsurance premium. Without such a reinsurance provision in the legislation the provinces have been reluctant to take the risk of including a high percentage of their farmers under the program, because a widespread crop disaster within their borders in the early years and before reserves are built up could place their financial position in serious jeopardy.

Second, the amendments will make it possible to rebate to grain growers whose grain is grown on insured lands, the levy paid by such growers under the Prairie Farm Assistance Act.

The Government hopes that the inclusion of the reinsurance principal in the legislation will encourage more provinces to participate in the Federal Crop Insurance Plan and will encourage greater crop insurance coverage in those provinces that now have provincial crop insurance programs in operation.

Agriculture Minister Hays said he hopes that the new legislation will encourage all 10 provinces to set up broad crop insurance plans.

At present only 5,600 farmers in three provinces — Manitoba, Saskatchewan and Prince Edward Island — are reported to be covered by crop insurance.

SASKATCHEWAN EGG CONFERENCE: CHALLENGING AND REALISTIC

"We could have an industry. But if we do not take up the challenge that it offers, we came here to bury it," said Jake Brown, Director of

(Please turn to page 41)

Farmers to Pay for Management Course

WE'VE ALL HEARD of cases where students of human nature have attempted to hand out coins on the street only to have them refused by a large percentage of passers-by. People tend to place little value on something which is offered free.

This is the basis of the B.C. Department of Agriculture's decision to charge a nominal fee to farmers who attend its Farm Business Management Program. Each participant will pay an annual charge of \$12.50 to partly cover the cost of a sturdy loose-leaf binder with especially well-designed and indexed, easy-to-use entry sheets, plus the professional services of a new team of agrologists who have made a specialty of economics.

Charging for the program will weed out people who might attend just for something to do. Those who do sign up will mean business, and be more liable to use what information they receive.

This is a streamlined program, geared to minimize the time spent in education of the operator. In other words, there won't be a lot

of time-wasting meetings. A basic instructional meeting will be held in any area where 10 or more farmers sign up for the program. This will be followed by four workshop sessions, the last of which will be used to show the farmer — from his own records — where he can make the most profit in his operation.

A participating farmer's wife, or senior 4-H sons or daughters, may also attend the session at no extra cost so they will know what's going on. The province's 4-H program is to be expanded to include farm economics so that the work assumed by a 4-H member in the program will be credited as a 4-H project.

The majority of the information needed for the Farm Business Management Program is already kept by most operators for day-to-day activity and for income tax purposes. The new loose-leaf book which goes with the course could replace every other record which the farmer has kept to date, with the exception of breeding or planting records. The operator will be shown how he can

make important management decisions by viewing trends in his personally compiled statistics.

B.C.'s Deputy Minister of Agriculture, Alex Turner, appointed a team of experts, headed by John Pankratz and assisted by Hugh Cowley, to set up the new program. They were assisted by other department personnel including John Zacharias, Jim Ryder, Harry Pope, Sig Peterson, Alan Littler, Al Pelter and Des Hazlette. Help was also obtained from Ed Woodward, agricultural economics officer for B.C., and from the staff of the University of B.C.

Success of similar programs in other areas of Canada and the United States is not enough to ensure its success in British Columbia. The diversity of B.C.'s climate, topography and crops produces problems that are unique to the province. However, a look at the new Farm Account Book, and a personal interview with the staff, should convince anyone that here is a hard-hitting and productive program.

Other agricultural communities will be watching the progress of B.C. in this new concept where a fee is charged for special management help from professional agrologists.—A.H.

Let's chat with Slakely about the weight and life of barbed wire

Take a look at the weights of the three standard qualities of barbed wire on our market.

Light — 14½ gauge 50 lbs. per 80 rod spool Heavy — 13 gauge 75 lbs. per 80 rod spool Extra Heavy — 12½ gauge 87 lbs. per 80 rod spool

You'll notice the length of the wire doesn't change. But between Light — 14½ gauge, and Extra Heavy — 12½ gauge, there's a difference of 37 pounds. This extra weight is important in two ways as far as the life expectancy of the barbed wire is concerned.

First, it means there is 20% more zinc with its special sealing properties that prevent corrosion.

Second, the extra weight of steel in the heavy gauges provides greater strength and allows the wire to hold its strength longer. Tests show that the lighter the gauge of wire, the faster the loss of strength.

While different conditions have different effects on wire, it is reasonable to expect that Extra Heavy Barb, with about 20% more zinc and 72% more steel, will have at least double the life of Light Barb. When you take time to put up barbed wire — put up the best — you'll have a fence that will last you for years.

When it comes to choosing the wire, see your Stelco Fence Dealer. He has a complete line of Frost Brand farm and specialty fencing, barbed wire, posts, gates — whatever you may need in fencing material.



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Businessman on the back forty

He's not likely to be seen giving dictation, yet the truth is that today's farmer is every bit as much a businessman as his urban counterpart. More so, in fact. He has to juggle crop rotation, buy and sell livestock, keep inventory, budget his expenses and plan for the future. And he's in a very competitive business. To be successful, the progressive farmer

must plan to meet the needs of the future and adapt to changes in farm operations. Through better fuels and lubricants, The British American Oil Company Limited is helping provide the day-to-day needs of the Canadian farmer. Through its product research and development, B-A is serving the growing technology of farming for the future.



A Three-Point Egg Program

This grain farming family makes its 4,800-bird laying flock profitable by . . .

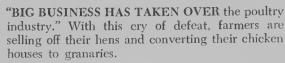
- n producing high quality eggs
- devising an imaginative selling program
- 3 continuing to seek cost-cutting methods to meet tough price competition



[Guide photos Mrs. Keith Colborn puts the distinetive Colborn mark on each egg

by ROGER FRY

Field Editor



But Keith and Clifford Colborn haven't heard the cry. On their 800-acre farm at Delisle, Sask., these brothers grow grain, feed the lower grades to a 4,800-bird laying flock, and market the eggs in Saskatoon. They even continue to expand their flock because they can sell all the high quality fresh eggs they can produce.

There are reasons for this. The Colborns plan to produce high quality eggs. They work at selling their eggs. They design their operation to reduce costs. They use young hens. They buy only laying strains. They feed a balanced ration. They hold their eggs in a refrigerated room. They candle, grade, stamp, and pack their eggs.

They deliver their eggs twice a week to four retail storcs. They watch the supply at the storcs, adjusting deliveries so that all the eggs are sold within a week. They mark each egg with an ink brand that identifies it as a Colborn egg. They pack their eggs in new cartons that are stamped with the farm name, Colborn & Sons. Regular customers know and demand Colborn eggs.

The Colborns know that there is keen price competition in the egg market. They continually try to cut production costs. The newest poultry house on the farm is equipped with droppings pits, deep litter, mechanical feeders, and automatic waterers. Heat is provided by a furnace in a small room at one end.

The Colborns plan to expand this room into a service unit that will contain a bulk feed bin, a grading and packing room, and a refrigerated egg holding room. The next poultry house will be built adjacent to the service unit so that the latter will be available to both houses. "The time we spend just carrying the eggs to the grading room in the house basement will pay for that service unit," Keith explained. The Colborns are determined to build efficiency in their business.

The older buildings present more of a problem. When I called at the farm, Keith and Clifford were planning to tear out a few small pens in the oldest building, a horse barn that Mr. Colborn Sr. had converted to a 3-storey poultry house. "We spend too much time cleaning out these little pens." Instead there will be one large pen with droppings pits and deep litter.

The Colborns are experienced in the skill of producing quality eggs. G. H. Colborn started in 1937, producing for a hatchery. The family has been candling eggs since then. In 1947 Mr. Colborn added a flock of 250 birds, and began

delivering to one of the O.K. Economy Stores in Saskatoon. The family has been selling eggs in O.K. stores since then. Today the farm supplies three stores in the chain and part of the needs of a fourth. Aside from local sales, these are the only delivery stops they make. They dropped the hatchery production in the fifties.

Keith and Clifford Colborn are members of the Delisle Farm Management Club. The yearly analysis of their farm business shows that they must increase their income and utilize more of their labor. This is why they plan to increase the size of their flock. They have another project on the go as well, one that will bring more farm income from both land and labor.

One hundred acres of the farm is low sandy land. It grew about one good crop in 10 years. Recently the Colborns found that there was a water table 10 feet below it. They had heard that forage crops could utilize water from this depth and decided to try it. The first trial seedings yielded an average of 1½ tons per acre. They now have 60 acres seeded to alfalfa and crested wheatgrass and intend to seed the remaining 40 acres as soon as possible. This forage land will provide hay and pasture for a steer feeding enterprise that will utilize more of the Colborn labor.

Keith is confident about expanding the poultry operation. "We are taking advantage of a natural situation here. We have plenty of feed—the cheapest there is. We can buy more here in the country if we need it. If we produce high quality eggs and offer a dependable supply we should have no trouble selling all we produce."

AN EXPERT'S FORMULA FOR FLOCKOWNERS

- be a bit different
- be a little better
- provide a more personal touch

Frank Payne, Chief, Markets and Merchandising, Canada Department of Agriculture, in his address to the September 1964 meeting of the Canadian Hatchery Federation, offered some suggestions for small producers who wish to stay in business.

They must provide retailers with a dependable large supply of uniform high quality eggs. Smaller operators can compete by doing what their competitors are doing but doing it a little better.

There definitely is room for the little fellow or better yet a combination of little fellows. Collective action will be necessary. This might be integration, merger, or cooperation. A small firm or co-operative sales agency can succeed in that area of the food market not controlled by the chains.



Bulk bin stores mixed feed for feeder system



Auger conveyor delivers feed to hanging feeders



These pens are inefficient and must be torn out

Doubts about Summerfallowing!

RON JOHNSON. Kindersley, Sask .:

"Summerfallow is too expensive. I am cutting my fallow acreage by one-third."





J. D. NEUFELD, Waldeck, Sask .:

"I would get no crop at all if I seeded stubble land."

It now appears that:

 chemical sprays or delayed seeding may be less expensive methods of controlling weeds

by CLIFF FAULKNOR Field Editor

- less than 30 per cent of total moisture is actually saved through fallowing
- commercial fertilizer application may be a cheaper way to boost fertility

But Swift Current Experimental Farm advises farmers in low rainfall areas: Don't plant stubble unless the depth of moist soil at seeding time is at least

18 inches in clay soils

24 inches in loam soils

30 inches in sandy soils



"Yields drop sharply if we try to get by without fallow."



IF A MANUFACTURER kept 36 per cent of his machinery out of production every year he would soon be in trouble because even idle machinery costs money to maintain. Yet each year about 36 per cent of all cultivated acreage in the three prairie provinces is out of production through the time-honored practice of summerfallowing.

Many agriculturists feel that new advances in soil technology have made summerfallow obsolete, except in cases of extreme drought or widespread weed infestations. Others contend it would be disastrous for farmers in the Brown and Dark Brown soil zones to stop summerfallowing except in high moisture years. The controversy boiled up anew last January when the CBC put on a TV series called "This Business of Farming."

Why do farmers summerfallow? Mainly for weed control, moisture conservation and soil fertility, the three agrologists responsible for this phase of the program explained. But perhaps fallowing land has become such a tradition that we overlook newer methods of weed control such as chemical sprays or delayed seeding which might be less expensive and more practical. When you summerfallow you pay \$5 to \$8 an acre in tillage costs and get no return on that acreage. In the meantime your land is left exposed to wind and water damage.

Does summerfallowing conserve enough moisture to pay for itself? Less than 30 per cent of the total moisture obtained during the total fallow period is saved in the soil, the experts pointed out. Tests conducted at the Swift Current Experimental Farm to find the amount of moisture saved in 21 months on fallow showed that only 13 per cent was saved in the period May to October and 16 per cent in the period November to April.

However, researchers injected a note of caution by saying that you cannot rate the need for summerfallow equally in all areas. There must be a study of specific conditions in each region. They also said there is need for some flexibility in cropping so that programs can be altered to suit actual moisture conditions.

As a matter of fact, those who favor summerfallowing and those who reject it aren't as far apart in their thinking as they appear to be. Certainly the question of whether or not to summerfallow would depend a good deal on the area you farm in, soil moisture conditions in any given year and even moisture conditions in the various fields on your farm.

Dr. D. A. Rennie, Department of Soil Science, University of Saskatchewan, put it this way, According to present knowledge, in the Brown, the Dark Brown and the thin Black soil zones of this province, farmers would be most unwise to eliminate summerfallow entirely. The frequency of drought within the above-mentioned soil areas is high enough to seriously jeopardize a continuous cropping program. On the other hand, in years where the soil contains enough moisture to warrant reseeding, a farmer who generally operates a 2-year rotation (summerfallow and crop) should certainly lengthen that rotation out.'

One of the main reasons given for summerfallowing is its effect on soil fertility. In Manitoba tests, Black fallow land contained about 100 lb. of nitrate nitrogen per acre in the fall. On stubble land, after a crop had been grown, the level was only about 55 lb. of nitrate nitrogen. But this loss can be replaced easily and more economically by applying a commercial fertilizer.

FIND ALTERNATIVES

Here are some of the reasons given why farmers should find alternatives to summerfallow if their particular conditions make stubble cropping possible: (1) Much of the plant food that becomes



EUGENE CYR. Pincher Creek, Alta.:

"I have just about eliminated summerfallow.

available in the fallow year is carried beyond the feeding zonc of most of our crops by downward percolation; (2) fallowed land is susceptible to wind and water damage which might mean loss of the organic matter layer of your soil; and (3) the use of grasses, legumes and commercial fertilizers costs less than the extra cultivation involved in trying to extract more nutrients from vour soil.

But plant scientists have no intention of advising farmers to abandon the practice of summerfallowing until a lot more research has been done on the question. E. S. Molberg of the Regina Experimental Farm reports their records show that since 1936 there have been 5 years when stubble crops were failures (less than 3 bushels of wheat per acre), and only 2 years when wheat on summerfallow failed to yield more than 11 bushels. Moisture appeared to be the deciding factor.

'Summerfallowing is still good 'crop insurance' for wheat growers on the Regina plains," he said.

Most farmers in the drier areas of southern Saskatchewan seem to agree with this. J. D. Neufeld of Waldeck told Country Guide if he seeded stubble land he would get no crop at all. Most of his land is steeply rolling so that a good deal of moisture is lost by runoff. At Gravelbourg, brothers Maurice and Jean Baptiste Pinsonneault found that their yields dropped sharply if they tried to get by without summerfallowing. They keep accurate yield records of all their fields, and the yields obtained when they seeded on stubble stand out like a sore thumb. Fred Leisle, who farms south of Morse, saw yields drop from an average of about 22 bushels per acre to 8 bushels when he tried the same thing.

On the other hand, Ron Johnson, who farms south of Kindersley, is planning to reduce his summerfallow as one means of beating rising costs. By using commercial fertilizer and chemical weedicides, he hopes to cut his fallow acreage by one-third.

"I was raised on the half-fallow-half-crop principle," he admitted, "but summerfallowing is getting to be a pretty expensive proposition. Land taxes are rising and you spend a lot of time and money cultivating fallow with no crop to help

Farther west, at Pincher Creek, Alta., Eugene Cyr has just about eliminated summerfallowing from his cropping program. He cultivates his stubble, gives it a fertilizer treatment and sows it to winter wheat. But both these men are in higher rainfall areas than their fellow farmers at Waldeck, Gravelbourg and Morse. As in the experimental farm tests, it all appears to hinge on the amount of moisture.

If you farm in the Black or Gray-Wooded soil zones you should think twice before you work down your stubble to summerfallow, according to A. W. Goettel, soils and crops specialist with the Alberta Department of Agriculture. Fallowing for moisture is often not justified in the parkland and bush areas. Goettel reports that it takes up to seven cultivations to keep summerfallow black in many of these areas, at an estimated cost of \$5.50 per acre, as compared to three cultivations and \$3 an acre in the Brown and Dark Brown zones. And these costs don't include interest on investment, depreciation, and repairs to your implements or tractor.

At the present time, summerfallow on the Black soils accounts for 11 million acres a year. On the Gray-Wooded soils it is about 1.28 million acres a year. Eliminating summerfallow in these two soil zones would mean over 12 million extra acres of crop production.

HOW TO TELL

How can you tell if it is safe for you to eliminate summerfallow? Dr. W. J. White of the University of Saskatchewan feels that if your stubble ground is moist to a depth of at least 25 inches just before seeding, your chances of a satisfactory yield are good. But if the depth of moist soil is less than 20 inches, your wheat yield will be less than 10 bushels per acre.

Agrologists at Swift Current Experimental Farm advise farmers in areas of low precipitation not to plant stubble land unless the depth of moist soil at seeding time is at least 18 inches in clay soils, 24 inches in loams and 30 inches in sandy soils. This could be a good yardstick for all who farm in the Brown or Dark Brown soil zones. Even on the Black and Gray-Wooded soils a producer should see some evidence of moisture reserves below root depth before planting stubble land to wheat. Results of over 20 years of testing at Swift Current show that a 15-bushel per acre wheat crop needs 10.5 inches of water, and that each inch of water above this figure will increase yields another 3 to 5 bushels.

The United Grain Growers' information sheet, The Grain Grower, lists five questions to answer before deciding whether to reduce or eliminate your summerfallow: (1) What is the yield difference between fallow wheat, stubble wheat or continuous wheat on your farm? (2) What is the cheapest and most effective way to summerfallow? (3) How much does it cost to summerfallow? (4) How much does it cost to cultivate, seed, spray and take off a crop? (5) What would be the difference in *net income* between these different methods of cropping?



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Broiler growers must live with the reality of volume production and slim profit margins. They can't overlook a program that will reduce mortality and boost performance

Signpost for Survival

THERE IS NO FORESEEABLE CHANGE in the broiler business from the already established trend of large volume and small unit profits. In this environment any opportunity to reduce losses, lower medication costs and improve feed conversion ratios must be explored by poultrymen. That's why Canadian poultrymen will be interested in a poultry health program being conducted by Dr. Harold Chute, animal pathologist at the University of Maine.

This program is now producing broilers with lower mortality, more efficient feed conversion and a lower percentage of condemnations at processing plants. Birds reared under the new program are being finished to greater weights than



A blood sample is taken from a bird; laboratory examination of these samples is part of program



Laboratory personnel check all injected embryos

by PETER LEWINGTON

Field Editor

similar genetic stock fed comparable rations raised under conventional methods.

Maine ranks tenth among the United States in broiler production. Yet in 1960-61 6,000,000 lb. were condemned; the common cause, chronic respiratory disease (CRD).

This State enjoys few natural advantages from the poultryman's viewpoint other than proximity to good markets. To stay in business poultrymen must take advantage of any advance which enables them to compete with areas more favored in climate and feed supplies. That's why Maine is the scene of a daring experiment in poultry health, an experiment that is beginning to attract worldwide attention.

Geography does place Maine in a somewhat preferred position for implementing disease control. It has a long Atlantic coastline; the few roads into it facilitate control over the movement of poultry. Pullorum and typhoid have been eliminated; fowl pox and laryngotracheitis are being attacked by quarantine measures and the use of a dead vaccine.

The effectiveness of live, attentuated or dead vaccines is being carefully explored at the University of Maine. Says Dr. Chute, "Our contention is that great steps in the poultry industry will be made by eliminating vaccination. To do this we must move one step at a time and our first move has been to use only dead vaccines in our breeding hens. We do not have a fowl pox problem, therefore this has been of no concern to us; we do not vaccinate for it even with the live vaccines available. We do, however, use where necessary a dead laryngotracheitis vaccine developed by Prof. D. C. O'Meara of our department.' Dead Newcastle vaccine is also used as it does not spread and provides excellent immunity.

The stimulus for the program came from Maine broiler men who wanted PPLO-free stock; PPLO (pleuropneumonia-like organisms) causes CRD, and PPLO and infectious bronchitis combinations were the biggest cause of condemnations, in some cases as high as 10-15 per cent.

Dr. Chute got the support of the United States Department of Agriculture, neighboring universities, broiler breeders and commercial producers of biologics and sanitation products. And he drew liberally upon the successes and failures of earlier disease control programs developed both in France and in North America.

Chute, who grew up in Nova Scotia, says, "When the broiler men requested the development of PPLO-free stock we looked at the whole picture and found that, with care and management, we could keep birds free of a variety of

diseases. We can keep birds free of certain diseases without resorting to the use of live vaccines and without medication. We-haven't been able to make any progress with leucosis but our birds are Specific Pathogen Free for a wide range of prob-



Dr. Harold L. Chute

Chute is specific about his SPF program; broilers produced under the program are free of the following:

- Pullorum-typhoid.
- Fowl pox.
- Newcastle.
- PPLO.
- Infectious bronchitis.
- Laryngotracheitis.
- External parasites.
- Internal parasites.

To date 60 commercial and privately owned poultry farms are participating in the program. These include 23 hatcheries and multipliers and 43 broiler growers. The apparent discrepancy in the figures is caused by the integration on some farms of hatching, multiplying or growing of broilers. The program operates like this:

Two generations are grown at one location. Other comparable facilities are used as seasonal demands require. Chicks go from these primary sources to large flocks, which further expand the available supply. The progeny from these flocks go to broiler multipliers who, in their turn, supply the men who will grow out the broilers.

"The danger of breaks," says Dr. Chute, "increases as we move on down through this sequence of production. We don't know that failure to implement all the precautions will inevitably cause an outbreak, but we do know that where all the precautions have been followed there have been no breaks. Recent data has shown that it is not as difficult as was once thought to produce, and keep clean, PPLO-free stock. As more clean females become available the exposure from infected flocks is less." (Please turn to page 42)

Results in broiler flocks grown free of respiratory diseases

No. of Birds	Age	Feed Conversion	Weight	Liveability	Condemnation
7,000	64 days	2.14	4.14 lb.	99.3%	0.028%
10,800	64 days	2.15	3.73 lb.	100%	0.14%
17,600	70 days	2.50	4.21 lb.	99.9%	0.63%
28,200	63 days	2.18	3.80 lb.	100%	0.61%
11,800	63 days	2.12	3.64 lb.	99.3%	0.085%
9,700	62 days	2.13	3.55 lb.	97.7%	0.00064%



Ice fishermen on a windswept western lake

Ice Fishin' Is Nice Fishin'

LAKE FISH CAN'T FLY south for the winter like birds and humans. They just cruise around under the ice and hope for an early spring. You can improve their diet and add a little fun and excitement to their lives by becoming a winter fisherman.

All ice fishermen are crazy, but some are crazier than others. Some go out when the wind is blowing so strongly they keep sliding away from their hole. When you see anybody this hepped about ice fishing you know you're looking at a real nut. A friend told me I should wear hobnailed boots, or build some sort of shelter. Maybe I'll try this next time.

Before you fish through the ice you first have to cut a hole. I don't know of any other way you can do it. If you have a tractor with a posthole digger which works from the power takeoff, you've got 'er made, providing you can drive onto the ice with it. When you can't you'll find that a small chain saw is a handy ice-cutting rig.

Most people have to cut their holes by hand. If you like hard work, you can do this by "spudding" your hole with a crowbar. A lot of spudders start a hole by chipping around in a circle. You will get the job done much quicker if you begin at the back of the hole. First hold your crowbar at a slight angle, then spud right across the hole toward you, advancing the bar about an inch every stroke. After that, the job is all straight up and down. But you can get pretty far on that first trip across once you get the swing of it. Remember to keep the hole small. Four inches in diameter at the bottom is plenty large enough.

If the ice is thick, you're in for a miserable job no matter how small you make it. Last winter, a friend and I tried to spud through almost 3 feet of ice. We puffed and snorted our way down to about 15 inches, then gave up in disgust and went into town to buy an ice auger.

ICE AUGERS

The most common type is a folding auger that looks like a carpenter's brace-and-bit with a 3-foot extension on it. At the business end is a cup-shaped disc with a sharp cutting edge. It can drill a 5- or 6-inch-wide hole through 3 feet of ice in about 3 minutes, depending on who's twirling the handle. You can buy a good Swedishmade model for about \$15. Remember to wipe it dry after each fishing trip or the joint might freeze and you'll have trouble opening it out again.

Married men can raise money for an auger by

removing a fuse from behind their car's dashboard and claiming they need a new battery or generator. If the wife sees the auger later, tell her it's a new type of jack handle that will save her back if she ever has to change a tire. Husbands who insist on being strictly honest should come right out and admit they bought an ice auger. Tell her you bought it from a Swedish immigrant for \$2.95. Every woman likes a good bargain.

A friend tells me he can dig a pretty good hole with a hand-operated posthole auger. I have never tried this myself, but if you do, make sure the thing is sharp.

You might think you've been pretty cold in winter, but you don't know what cold is until you try sitting out on the ice on a blustery day dangling a line down a hole. To combat this, fishermen have come up with all types and sizes of shelters. These vary from a stove-heated shanty that will hold six or eight people to a simple three-sided windbreak built on a child's sled, with a farm lantern to warm the feet. Where wind is no problem you can keep warm with a charcoal brazier, or various makes of portable heaters that



Cutting a hole. The ice here is almost 3 feet thick

by PETE WILLIAMS

use coal oil or an inexpensive fuel such as denatured alcohol. The other kind of alcohol is said to help too. But none of these things will keep you from getting chilled if you go out there without properly insulated clothing and boots.

LUXURY CAMPERS

If you can drive onto your favorite fishing lake, you can use anything from a luxury camper or house trailer to an ordinary pickup truck or private car. I know of a fella who used a big crane mounted on a heavy truck. He didn't use this for fishing; he used it to recover his car after it had fallen through the ice. But most people have more sense than to carry on fishing after the ice has started to melt. That was one time I was real glad I had my car insured.

Another thing you'll probably need is fishing tackle. Of course, you could use dynamite, but this is against the law. It also might be a bit hard on the ice. For the bigger fish, such as lake trout, walleye and northern pike, many fishermen like a line that's much heavier than necessary because it's easier to handle — even line as heavy as 45-lb. test nylon cord is used. For smaller fish — especially when you're jigging — a 10-lb. test monofilament nylon (spinning line) will do the trick. Anywhere from a No. 4 to a No. 8 hook will serve in most cases, unless you're where you can fish tiny-mouthed species like the Rocky Mountain whitefish. These shiny little critters (often called grayling by mistake) are best taken on a No. 14.

One reason for having tackle which is heavier than necessary is that you never know what you're going to get on your line. Last winter, I was fishing for "rockies" with a No. 14 hook when a big Dolly Varden trout struck. I managed to get his snout out of the hole just as the hook broke, and grabbed him before he could turn around and escape.

POP A FISH EYE

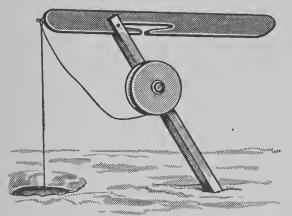
The bait you use will also depend on the fish you're going after. For lake trout, walleye, northern pike and perch you can get good results with small minnows, or any one of several artificial lures. Garden worms are a favorite with certain trout both summer and winter. Live winter baits, such as maggots and garden worms, can be obtained from most sporting goods stores. If you happen to be a corn grower — or know one — you might get a few ears that some juicy cornborers are using as a winter hideout. When you

catch a perch, pop its eyes out with your thumbnail. There's nothing these little fiends like better than the eye of another perch.

If you're going ice fishing for the first time (or in a strange area) find what the local anglers are using. Better still, go out and watch them operate a few times. Most fishermen are quite happy to tell you about their methods - "Simple Simon with a license," writer Robert Ruark calls 'em. Just remember that you aren't much brighter or you wouldn't be out there in the cold trying to pick up a few pointers.

JIG FOR PERCH

The best way to catch yellow perch and bluegills is to jig for them. For this, you will need a short jigging stick, at least 80 feet of 10-lb. test monofilament, a 3-ounce sinker and a jigger. The latter are generally small spoons with a No. 6 or No. 8 hook attached. It's necessary to have a fairly heavy sinker so you can get that light line down through the slush ice as quickly as possible once you've located a school of perch. You can either bait your jigger or leave it bare, whichever you prefer. A jigger is a legal lure. The fish take it in their mouths like any other bait.



The finger of this rig can be adjusted depending on the bait being used and the fish being sought

Jigging is a specialized business. To begin, drop your sinker into the hole, let out line until you can feel it touch, then wind in until the hook is about a foot off bottom. Using a rhythmic flick of your wrist, jig the hook up and down a few times, then raise the jig stick shoulder high with a sudden sweep of your arm. Just keep on doing this until you catch a fish. You'll find you get a good deal of your catch on this upsweep. It has the added value of attracting cruising fish to your line. Keep cutting holes until you locate your school, then jig like crazy before it has a chance to move on.

TRY A TILT

You don't need a rod for ice fishing. But some people use one and prop it up beside the hole so they can see the tip bend when they get a bite. A bobber is all right too, providing you can keep the hole free of slush ice so it will float. Check local regulations to see how many lines you are allowed to set out. If you can have two or more, it might pay you to make a few "tilts." These consist of a line spool, a short wooden upright and a crosspiece, or "finger," which tilts down suddenly and stays down when a fish strikes. They are quite cheap and easy to make.

If you have a lathe, you can make all the spools you need from 4-inch blocks of 2 by 4-inch studding. Lacking this, you can whittle satisfactory line holders from pieces of 1 by 4. "Fingers' can be made from 4-inch lath, 2 inches wide cut in lengths of about 15 inches. Uprights can be cut from stock 2 inches wide and anywhere from ½ to 1 inch thick. These should be slotted at one end and a nail driven through to act as a pivot for the finger. The latter is attached to the pivot nail by a long slot which is open at one side. To cut the finger slot, you will probably need a coping saw. The idea is to have the finger balanced on its upright in such a way that a bite on the hook will cause the finger to slide forward and down. Line holders, or reels, are nailed to each upright, and the line is looped over a small nail



real nice batch of "rockies" and a inbow trout. Whitefish were eaught single rainbow trout, Whitefish were eaught with maggots while a worm was used for the trout. Different baits can be offered on the same line where two or more hooks are used

on the end of the finger which juts over your fishing hole.

Use a very light lead when rigging your lines or the weight might trigger your tilt. You can rig with a single hook, and the lead about 8 to 10 inches from the end, or with the weight on the bottom and one or more hooks farther up the line. In the latter case, your sinker will be resting on the bottom. You might save yourself a few hooks by attaching the weight to your line with a rubber band. If it gets caught, the sinker is all that you will lose. The number of hooks you can use is governed by provincial regulations. Check before you start to fish.

Whatever equipment you have, or type of quarry you're after, you'll get a lot of satisfaction from ice fishing. The most satisfying moment of all is when you quit and come in out of the



What's the best hog feed to buy? It's the one that gets your hogs to market weight fastest, the one that makes Grade A carcasses and gives you premium prices. That's "Miracle" Hog Feeds. "Miracle" puts extensive research into the formulation of its feed. The result is rations scientifically designed to give you strong, meaty hogs ... hogs that will grow faster, grade out better. Try "Miracle" Hog Feeds. Your hogs will thrive ... and so will your profits.

FEEDS

Mrs. June Garwell shows Deputy Librarian Ronald Baker and driver Alan Seymour the library route

A familiar scene in rural Middlesex. Packages of books arriving by mail delight the whole family





[Guide photos

The 69-cent Miracle

LAST YEAR THE PEOPLE of Middlesex County in southern Ontario read 32½ tons of books supplied by their County Library! These books were worth some \$425,000, but the cost to the individual taxpayer was just 69 cents — a 69-cent miracle that gives the farm families of Middlesex County access to the best in library services.

It's the result of a revision of the Ontario Public Libraries Act, copies of which are obtainable from the Department of Education, Parliament Buildings, Toronto. This legislation provides the opportunity to build good libraries, but it takes people, working hard at the local level, to provide the benefits.

There are problems, of course. With the move to centralization, local authority may be lessened and it is not unusual to find local autonomy most jealously guarded where the service has been the poorest. "But how important," asks Middlesex librarian Fran Whiteway, "is local autonomy when it condemns readers to a very limited book supply and poor service?" The Middlesex Board overcame this hurdle in two ways.

First of all, it left a degree of authority with participating boards. Decisions affecting the library at the local level are handled in the community; its people can also take full advantage of services offered by the main County Library. The second decision allowed local libraries to spend whatever funds they had accumulated over the years, as they chose. Most boards purchased items they had needed for years. As a result there are now enough chairs, desks and stoves in every little library in the county. In

by PETER LEWINGTON

Fiold Edito

fact, the library service has improved so much no one wants to return to "the good old days."

- All 23 branch libraries (some municipalities operate more than one library) have a constantly changing supply of books members want. Changes are done routinely every quarter and involve the movement of some 14,000 books.
- All elementary schools which register for the service have 50 books per classroom delivered to their schools once each term.
- High school libraries are augmented by supplies from the County Library.
- The interest in reading aroused during the school academic year is nourished through vacation periods. Young adults can choose books from lists and order them from the County
- Younger children are not forgotten. Deputy librarian Ronald Baker tours branch libraries during the summer to read stories to a faithful and fascinated audience.

THESE ARE ALL excellent services, but the one most highly praised is the "books by mail" service. With it even the most isolated farm families have ready access to excellent sources of entertainment and information. There is no charge.

Packages of books are despatched by mail. They may be technical books for high school students engaged in special projects; they may be volumes on sports, farming, mechanics or public speaking for Dad; there may be a new cook book or a selection from the best seller lists for Mom. This library-in-the-mail-box service is by request. Members indicate the type of books they prefer and library staff makes a conscientious effort to fulfill these requests. In this way, farm families may indulge their interests and hobbies to a degree which would be most costly were they to purchase the books outright.

To the delight of the library staff, people in rural Middlesex are beginning to make full use of what is offered. Farmers and their families can even have books sent to them in their hospital ward, if they so desire.

Says Mrs. Whiteway, "Many a small library, where the book budget was below \$50 per year is now making available to its borrowers between \$25,000 and \$30,000 worth of county books. Many a small library has more than doubled its circulation. A number of small libraries have requested as many as 500 additional books between exchanges. It is the first time that this has happened."

There are several advantages to the county library system:

- There is a better choice of books, including up-to-date and expensive reference volumes.
- A sound financial base permits the weeding of out-dated books. Several libraries in rural Middlesex which belong to the county library have replaced 1,000 or more old books with new, readable volumes.
- Areas and groups can be serviced according to their needs. People have access to the books they want, not just a collection inherited from an earlier generation.
 - Volume buying brings discounts.
- Professional library management, including cataloguing and book buying, adds to the efficiency.

Where the county level is too small to create a worthwhile library, the new legislation encourages regional development. Financial support for such development comes from a combination of provincial grants and a small levy on the county mill rate. For the five regional libraries that have been created the individual cost is minute; collectively the results are amazing.

Of the Middlesex County Library, Education Minister William Davis had this to say, "The importance of the local library lies in its roots in the community; but this does not justify the library board which fails to offer people a good library service. Of nearly 500 public library boards in Ontario, the great majority are in communities too small to offer adequate service, if this kind of isolation is maintained. Far wiser are the 21 public library boards in Middlesex which joined to form the first county public library in Ontario."



There are 23 branch libraries in Middlesex County library organization. Here librarians check books out

The Ingenious Islander

by PETER LEWINGTON
Field Editor



Islanders James Allan and son Don built this 2-row potato harvester. With one pass over field job is done

Don Allan is producing 2-row potato harvesters in his farm workshop that Maritime potato growers say can't be beaten

THE GARDEN OF THE GULF, or Prince Edward Island as it is better known, has long been noted for its pleasant climate, red soil, neat farms and abundant potato crops. Now it has another feather in its cap. Don Allan, a young Covehead farmer, has developed a 2-row potato harvester and people on the Island are just bursting their breeches with pride over his achievement.

"I wouldn't want any other kind of harvester," says Harry Fraser of Hazelbrook. Emmett Power, of Greenfield, declares, "The machine can't be beaten." Another grower who is using the harvester claims, "This is the best thing that ever happened to P.E.I."

For Don Allan and his father James, the work of growing, harvesting, storing and marketing 55 acres of potatoes looms large on their 240-acre farm. It requires good machinery and equipment. The Allans have just completed a new storage



Don Allan uses the portable hoist he made himself to maneuver a newly completed potato bulk box



"I've been tinkering with machinery for 40 years," says James Allan. "Don is doing the same thing."

building. It is a well insulated and ventilated structure, and is clad in aluminum. As a result the Allans are now able to store part of their crop through to mid-July. This attention to detail has paid off. Some of their potatoes now find a market in Greece and Venezuela while their Kennebec and Sebago seed potatoes have moved as far west as Ontario.

A look at the equipment on the Allan farm reveals that ingenious handymen have been living there. There are various homemade potato sizers; bulk boxes of 230-bu. capacity for mounting on wagons or trucks; a key cutter in the workshop made from this and that; an old truck hoist; and a milling machine which is an adaptation of one designed for sharpening planer blades.

James Allan explains, "I've been tinkering with machinery for 40 years and Don is the same way."

The Allan workshop is a 40' x 50' steel machinery storage, a portion of which is heated for winter work. It is economically, but efficiently equipped and it is here that the big 2-row harvesters are made at the rate of three a winter. So far, a total of seven have been turned out. The bearings, chains, gearbox and rubber rollers for the harvester are purchased but all other components are made right on the farm.

The harvesters differ in detail from ones that are imported from the United States. Don Allan is steadily trying to improve his product. "We still have a few minor bugs to work out but for 1 year following purchase I carry out all necessary modifications. Stones have been a real problem in some eastern potato growing areas. Next year I'll add a stone hopper which can be tripped."

Emmett Power who purchased the first machine 3 years ago and now is using his second Allan harvester recalls that the machine eliminates the old job of picking the potatoes by hand behind the digger. Power, who will harvest I70 acres this year, has found that the machine's capacity is 1 acre per hour. A 50 h.p. tractor is the minimum for efficient operation, although more power is required in hilly country. If stones are not too serious a problem, and weed control has been successful, a crew of two on the machine is sufficient. Where more debris is involved, three men are required on the harvester for best results.

Harry Fraser, of Highland Farms at Hazel-brook, is another grower who has been able to increase production through mechanized harvesting. He says, "The self-propelled is considered the ultimate in harvesting, but I prefer Don Allan's. If the haul is short and there are no delays caused by trucks, I can harvest 9 acres in a working day. The machine has a simple and

rugged construction. It does a better job of separating tops, stones and other debris from the potatoes than any other machine I have seen. The capital cost of the machine is low and since it is easy to repair, maintenance costs will be lower as well. On our soil the digger chains wear out on 150 acres. They might have a shorter life in stonier soils."

Fraser, who was raised in New Brunswick where his father still farms, asserts that this is the first machine to be suitable for New Brunswick where the fields are both steeper and stonier.

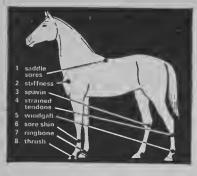
Prince Edward Island is obviously proud of the inventive farmer and the product he is producing. And to anyone who might question the future of what might appear to be an audacious venture, one potato farmer smiles complacently and says, "Donny will be in business and probably in a bigger way, just as long as I need a harvester!"



Two men on the machine are adequate under good conditions. With debris a problem three are needed



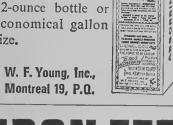
The Allans' potato harvester from another angle



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TWEDDLE FARMS, Fergus, Ontario

Livestock

Haul the Cow to the Vet

This new approach to veterinary service permits the vet to spend more time doing professional work, under better conditions, and without charging for mileage

ONE HUNDRED DAYS a year driving the car. Is this what a veterinarian is trained for? Is this the best way to serve the farmers in the district? Two farmers who don't think so are Bernard Nelson and Norman James who farm at Grandview, Man. That's why they are prepared to haul sick stock 20 miles to the Dauphin Veterinary Clinic for diagnosis and treatment instead of calling the veterinarian to the farm.

I talked to Dr. Rae Butler of this clinic in his office in the modern building. He explained, "In 1954 I drove 54,000 miles on calls. At legal speed limits that is a lot of time at the wheel. I couldn't really charge enough mileage to pay for my time and I was not serving the farmer properly.

Dr. Butler also explained that a veterinarian can provide better service in the clinic where there are proper facilities for diagnosis and



The large surgery doors allow small trucks to back in. Unloading chute restrain larger to

treatment. "We can do blood, urine or feces tests and use the results in prescribing treatment right away. On the farm we have to prescribe first and then do the tests after we get back here. If we were wrong, then the farmer has to come in for different drugs. He might as well bring the animal to us in the first place.

The modern clinic contains offices, a laboratory, surgeries for large and small animals, kennels, and a dispensary. Small farm trucks can back right into the large animal surgery. Diagnosis and treatment can be done on the truck or in a specially designed squeeze chute. Either way the animal is in a warm, dry room and the veterinarian is working with good lights, power, and a supply of warm water and drugs.

The next step will be to add holding pens so that calves with severe scours and animals needing postoperative care can be held.

I called at Bernard Nelson's farm. He is increasing his beef herd and now has about 60 head. He recalled The Dauphin Veterinary Clinic, located on a paved road, is convenient for farmers hauling their stock to the vet

[Man. Dept. of Agric. photo



a calving case before the new service was offered. "She was a young heifer. I called the vet at 6 o'clock on a Saturday evening. He had to take the calf by Caesarian section and it was 2 o'clock in the morning when we were finished.

Since then the vet has only come to the farm once, to treat an epidemic in Mr. Nelson's cattle. He has hauled other animals needing treatment to the clinic. One was a bull with cancer eye, which was removed at the clinic. Mr. Nelson did not think that the veterinarians would have performed this operation on the farm. The clinic has also done an autopsy on a dead calf and castrated a Shetland colt for Mr.

"It is a useful service," said Mr. Nelson. "A farmer can take calves, pigs, or chickens in for diagnosis and buy the proper drugs to treat the rest on the farm. The vet did not always have the drugs in the car and the farmer would have to go to town anyhow." Mr. Nelson also liked the fact that there is always a vet at the clinic. "Before, we had to wait until the vet got back from a call to get our message and then wait till he got to the farm. Now we phone to say we are coming."

Dr. Butler agreed that having a veterinarian on call at the clinic was a good idea. "But it requires at least two men to provide such a service for there will always be some farm calls to make." However, the idea is catching on with farmers in the Dauphin area. The clinic started in February 1962 and the volume of calls at the clinic by the spring of 1964 was triple that in 1963. Many are repeat customers. Much of the surgery work is Caesarian section.

Norman James, also, from Grandview, runs 50 to 60 sows. He uses the clinic's services for disease problems in small pigs. "I can't see paying that mileage charge when I will have to go in for drugs anyhow. I can usually combine the clinic call with other business." Mr. James prefers to phone ahead and make an appointment.

Dr. Butler pointed out that there are many clinics offering this service to farmers. "Any 2-man or 3-man practice can offer this service and the veterinarians usually find that it is an improved way of providing service to farmers."-R.F.



[Man, Dept. of Agric, photoery. Equipment and Dr. Duncan examines a pig in the small animal surgery. Equipment and drugs for testing and for treatment are readily available in lab and dispensary

Winter Nutrition of the Beef Cow

STOCKMEN ATTENDING the annual livestock feeding and management day at the Canada Department of Agriculture Station, Lethbridge, Alta., were told about tests being conducted on winter nutrition of beef cows by Drs. Bob Hironaka and Hobart Peters.

"A big expense in raising feeder cattle is the cost of maintaining brood cows, especially during the winter feeding period," Dr. Hironaka stated. "If you overfeed, you not only add to the cost but you actually lower the productive life of the cow. On the other hand, underfeeding leads to the birth of unhealthy or dead calves, and to lighter birth weights. It may impair the health of the cow, or even cause death.

The idea is to feed at a level which will keep cows healthy and able to produce a good calf at a

minimum cost. To do this, it might be necessary to supplement the feeds you are using. Feeds such as straw and grass hay generally need a protein supplement. This not only supplies the animal with protein, it also increases the digestibility of the straw or hay.

One of the most common winter nutrition problems is maintaining an adequate level of vitamin A. Vitamin A is deficient in winter and early spring forage, which means your cows should receive 30,000 to 40,000 international units of the vitamin per day.

"You also have to provide cobaltiodized salt free-choice along with a mineral mixture to supply calcium, phosphorus, and any trace elements which may be lacking," Dr. Hironaka continued. "And be sure to have a clear, ice-free water supply at all times."

In the station test, it was found that a daily ration containing 5 lb. of straw, 5 lb. of alfalfa hay, 1 lb. of oats and 0.5 lb. of protein supplement (3 parts soybean meal, 1 part urea), fed during the whole winter period, was not enough to maintain the animals. Several cows and calves died on this ration. But cows fed 5 lb. of straw, 5 lb. of alfalfa hay, 4 lb. of oats and 0.15 lb. of protein supplement maintained their weight and produced healthy, vigorous cows.

Questions from the floor revealed that stockmen are more concerned with a vitamin A deficiency than anything else. Here are some of the questions asked and the answers received:

Q. How did you, feed your vitamin A in this test?

A. We mixed it with the bone meal.

Q. How about injecting it?

A. This works fine, but it is very expensive. Vitamin A has to be kept

dry or it will deteriorate in a week or 10 days.

Q. What about adding vitamin A to the drinking water?

A. It is possible to get some that can be added to drinking water, but I don't know how stable it is. This has a coating of some sort on it. It has been known to pass right through the animal. I recommend that you put the vitamin A with your feed.

Q. Would all the animals get enough of the vitamin in a mineral mix that is fed free-choice?

A. You have no guarantee of this, of course. We're working on the assumption that an animal will take some mineral.

Q. How do you control wind loss of vitamin A when it is fed out on the range?

A. You can make a box with a wind vane on it so that the open end will always be out of the wind. A rancher at Pincher Creek does this and it works fine for him. (See Diversified Farm, Country Guide, September 1964.)—C.V.F.

How to Figure Shrinkage

IF YOU RAISE beef cattle for market it will pay you to learn something about shrinkage because you will be faced with this problem everywhere you turn, Dr. Sid Slen, CDA Research Station, Lethbridge, Alta., advised stockmen attending a recent feeding and management day. Shrinkage varies widely under different conditions and you must be prepared to bargain with the buyer on this point.

"Don't take the packer-buyer's figures on shrinkage," he advised. "Remember that opinions differ on this. Stay away from any idea of using 'customary' or 'normal' shrinkage figures. A lot will depend on the condition of your cattle, their quality, and the closeness to market. If you're in doubt, you can always have them rail graded.

"Sometimes you run into the problem of double shrinkage," he continued. "If you had to move your cattle some distance to get them weighed you might have already added about 3 per cent shrinkage. Then, if you hold the animals over, you add more. It could add up to a shrinkage of 7 to 9 per cent."

Here are some of the factors which affect shrinkage:

- The length of time your animals are in transit. Shrinkage rate becomes less after the first 2 or 3 hours. In general, cattle will shrink about 5 per cent in the first 5 hours, and about 0.2 per cent per hour for the next 30 hours, or 11 per cent for the whole trip.
- The degree of animal comfort is important. Weather extremes increase shrinkage, as do overloading, underloading, rough handling, and rough runs with many stops.
- Condition of your cattle at time of loading also has a bearing on shrinkage. Animals that are tired, hungry or thirsty will have a high degree of shrinkage when marketed.
- The kinds of feed used are also related to this problem. Grain-fed

cattle will usually shrink less than cattle off grass, hay or silage. Laxative feeds, such as beet tops and cover crop, result in more shrinkage than non-laxative feeds.

- An overnight stand, off feed and water before loading, results in less shrinkage. These animals will be more likely to take on a good fill at their destination.
- There is not much shrinkage difference between truck or rail shipments. Livestock trailed over 4 miles, or over 15 miles with feed and water on the trail, shrink more than if they are moved by truck.
- The class of animal you are shipping is important. On long hauls, feeder cattle shrink about 25 per cent more than fat cattle, although fat cattle do shrink more during the first 9 hours in transit.
- Fat heifers shrink a little more than fat steers during the summer, but about the same during other seasons. Bulls and calves will shrink more than steers.
- Breed or breed lines do not seem to affect shrinkage.

A study was conducted at Lethbridge to show what prices a cattle shipper must get to give equal returns from an 800-lb. beef animal under various market conditions such as shipping to a distant central market, shipping to a local auction or selling right on the ranch.

It was found that, if the owner sold his animal on the ranch on the basis of an overnight stand, he would have to sell it for \$20.85 just to recover his costs. If he shipped it to a local auction 50 miles away, and the animal was sold on arrival, he would have to get \$21.20. If the animal went to a central market 600 miles from the ranch, the price would have to be \$22.90 to break even, if sold an arrival, and \$22.05 if it were not sold for 3 days.

"In other words," said Dr. Slen, "you have to get about 3ϕ a lb. more for your animals if you ship them to Vancouver than if you sell them right on the ranch. The price might look better in Vancouver, but you must decide if it is enough to allow for shrinkage."—C.V.F. V

Screen Out Fiber to Prevent Scours

SCOURS IN YOUNG PIGS may be partly blamed on too much fiber in the feed. Doug Stevenson, swine fieldman of the Manitoba Department of Agriculture, suspects that sharp particles of oat hulls in ground feed will scratch and wound the digestive tract of young pigs. The heavy infection entering these wounds causes scours.

I visited Ron McPhail, a Yorkshire breeder at Brandon, who agrees with this theory. Ron has set up a combine recleaner to remove the slivers of oat hulls from the feed which goes to young pigs. He uses it for feed going to sows with young as well because, "When a baby pig starts eating, it tries the sow's feed first."

The equipment consists of a combine recleaner connected to the grain grinder with a 4-inch pencil auger. The grain mix goes through the grinder and then either directly to the feed bin, or else to the recleaner which removes the split oat hulls as well as some meal. "I can use the cleanings to add fiber to the ration of older pigs or of hogs I am finishing for market," said Ron. "What is left is the pure meat of the grain which is what the little pigs need.

It doesn't hurt the sow to have it when she is milking."

At first Ron grew hull-less oats in order to provide low fiber feed. He

also considered installing a hammermill but reasoned that making fiber smaller would only increase the sharp ends.—R.F. V

Ron McPhail examines the oat hull fibers extracted from ground feed by his combine recleaner

[Guide photo



Dairying

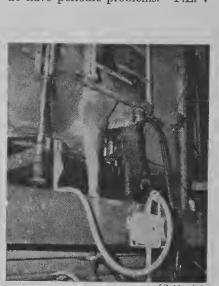
Automatic Concentrate Rationina

REMEMBER WHEN all you needed was a milk cow, a pail and a stool? Remember when you took that audacious step and began weighing and recording milk pro-duction? Remember when you got scientific and began balancing the milk cow's nutrient requirements and when "maintenance ration," "TDN," "protein" and a host of other terms crept into the vocabu-

Then milk parlors, feed augers and free stalls came on the scene; the bushel basket hung, unused, on the wall and the scoop shovel gathered dust. We had reached the age of automation. Bossy, sometimes giving vent to her displeasure, was dragged into a new era. Now we have to ask, how automatic is automatic?

Take, for instance, Paul Varney's new free stall and milk parlor operation at Turner Centre, Maine. Varney has an electronic feed metering device. For every 5 lb. of milk each cow gives, she is instantly rewarded with 1 lb. of the concentrate ration. This level of feeding is regarded as adequate for maintenance and the production of 30 lb. of milk. Higher producing cows are fed additional concentrate as they enter the parlor. This is done manually - one full turn of the dial will deliver 3 lb. of feed. There are two extra stalls in the parlor arrangement which may be used for milking if high producers are slow in clearing up their ration. In this way higher grain feeding does not delay the milking procedure.

Just how precise can farm equipment be, and still give satisfactory service, considering the level of maintenance which is practical on the farm? "The equipment is very accurate," says Varney, "... but we do have periodic problems."—P.L. V



For every 5 lb. of milk this cow produces, she will be instantly and automatically rewarded with 1 lb. of concentrate fed from up above

Small doors in cooler wall permit customers to serve themselves from fully stocked shelves

[Guide photos



This Dairyman **Bought a Store**

He sells milk in jugs to get

CONTROL OF THE MILK from the cow to the consumer! That was what Art Rampton wanted when he opened the Golden Guernsey Jug Store in Dauphin, Man., on September 9. "I wanted to be able to control the price and the quality of my milk," Art explained. "I was also interested in promoting Guernsey

The "jug store" is not a new idea. Similar jug stores are springing up in Eastern Canada and the United States and are pioneering a new concept in fresh milk marketing.

To supply the jug store, Art milks 60 Guernsey cows at his Gartmore

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Every Cow

with

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Rex Wheat Germ Oil is the simplest, surest way to end breeding complications. Nonorganic sterility, absence of heat, shyness to mate, misses and abortions, inactive bulls—these all too common breeding troubles quickly disappear when you feed Rex Wheat Germ Oil. Here's what enthusiastic users say about it:

"If anyone has trouble settling his cows I recommend feeding Rex Oil" E. Gautzert
"I bred 8 heifers. None caught though I bred them a dozen times. I was ready to quit. Rex Wheat Germ Oil settled every one of those heifers" W. Boyer

You can easily make this season your most profitable yet—order your supply of Rex Wheat Germ Oil today.

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 convenience for his customers • reduced delivery costs

bottles, is delivered to the store.

The bright new jug store in Dauphin offers both 2 per cent and 5 per cent butterfat milk in 3-quart and 1-quart bottles. It also carries fresh eggs and bread. The jugs and bottles are stored on self-filling shelves inside the main cooler. Customers reach through small doors on the store side of the cooler to take what milk they wish. I called at the store during the evening rush hour. A steady stream of customers came in. One man took seven jugs and





"Why rush off? In another hour you can help with the milking."

Guernsey Farm just southwest of Dauphin and buys milk from two other Guernsey herds in the area as well. The milk is standardized, homogenized and pasteurized in his modern processing plant next to the new dairy barn. The final product, in 3-quart jugs and standard quart

I asked Art about the 3-quart jug. "It is handy for the consumer and more economical. The 3-quart jug is approaching a bulk-type pack." Art wants to attract customers to the store and he thinks that the 3-quart container will provide an extra convenience for them.

Three-quart jug with plastic handle for easy carrying is the main item in jug store managed by Mrs. Wilkins



Serve-yourself ehocolate milk. Just another way to increase store volume

explained that he took home milk for several neighbors.

Art says that he must process over 2,000 lb. of milk to operate the plant efficiently. The store, after being in business only 6 weeks, is up to 1,500 lb. Now Art plans to start selling to cafes and hotels in Dauphin. This will enable him to keep his volume per delivery up. One potential customer wants a can of milk and 8 quarts of cream per day. "Compare that with the average household route stop," says Art.

Art Rampton is aware that he faces stiff competition. "That is why everything in the plant is new. I couldn't afford to be out of business for one day." The major items of equipment in the processing plant are the standardizing equipment, the pasteurizer, and the homogenizing equipment. The dairy between the barn and the processing plant houses a large bulk tank where milk from the Gartmore cows and from the outside herds is held for processing. In the basement there are two separate cooling systems and a heating plant as well as the pressure system for the water supply. Art hasn't added up all the bills yet but he estimates that he has \$30,000 invested in the processing plant. V

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New **Brunswick** Turns to **Poultry**

Mrs. Loretta Thompson of Head of Millstream, N.B., is raising three crops a year for a total of 6,000 turkey broilers. With such a neat device as this, there will be no feed wastage



Expansion underway in N.B. could change "import" picture and boost farm income

ONLY ONE TURKEY in five which is consumed in N.B. is produced there and only about half of the total poultry meat requirements are produced within the province. It is a situation which has caused agricultural officials there concern, but farmers now have an opportunity to correct it. They can now boost local production and curtail "imports" of poultry meat because of the decision of Canada Packers Ltd. to establish subsidiary plants at Sussex. Poults and broiler chicks will be hatched at Canard Poultry Limited while the market weight birds will be processed by Sussex Poultry Limited.

Fieldman Ralph Fuller of Canada Packers says, "We are recommending a minimum of 20,000 broilers and four batches a year for full-time growers. Five, 10 or even 15 thousand birds would tie in well with other farm operations or as a secondary income for part-time farmers. The implication is that the demand will be there just as long as farmers want to produce.'

Broilers will be trucked up to 50 miles and heavy turkeys 150 miles, if necessary, so that much of the province's better agricultural land could be affected. The potential is for 1,300,000 broilers a year and 100,000 turkey broilers.

The first broiler chicks went on feed in late October, while some turkeys will be ready for the Christmas market. Despite the desperate need of many farmers to boost their

Poultry

turnover and profit margins, reaction appeared to be ultraconservative, although a few new buildings were starting to go up this fall.

Mrs. Loretta Thompson is one person who needed little inducement to expand turkey production. The Thompsons already had 400 heavy white turkeys and 14 years' experience. Mrs. Thompson is a busy, jolly, farm wife with a ready laugh; 'I thought that I'd better stick with the turkeys. I only had three chickens in my whole life and they drowned! I started 2,000 additional turkeys this fall. They say it is better to be a busy fool than an idle one." The level of management and sanitation in the turkey house at the Thompsons' farm at Head of Millstream is anything but foolish.

Besides being a good manager Mrs. Thompson is a force to be reckoned with in the gentle art of persuasion. Her husband, Murray, had poured a floor 48' x 40' for an implement storage. With the prospect of turkey expansion, he built an upper floor for turkeys and then had to forfeit the lower floor too. If the 2,000 turkey broilers clear 50 cents apiece there will be no regrets about the shed. "The birds should average 11 lb. at 16 weeks," says Mrs. Thompson. "I hope to have three crops a year."—P.L. V



Poults in Mrs. Thompson's new bldg.

Some hatcheries failed because they could not create the necessary volume, others had only seasonal production, while for still others, the extension of credit or soaring capital demands proved too much.

There was complete unanimity amongst the panel that the chicks hatched tomorrow will have to meet rising standards for feed efficiency and production; they will also have to comply with more stringent health requirements.

Said Eby, "With better quality control, chick quality is rising. Five years ago many hatcherymen had to have a new procedure proved to them; now they request new and better health procedures.

In the areas of health, livability, feed conversion and volume of production, the breeders and geneticists have served the farmer well. On the other hand, the problem of weak albumen is becoming serious. This problem must be solved or there will be fewer consumers and the need for still fewer hatcheries.-P.L.

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Exclusive Healing Substance Proven To Shrink Hemorrhoids And Repair Damaged Tissue.

A renowned research institute has found a unique healing substance with the ability to shrink hemorrhoids painlessly. It relieves itching and discomfort in minutes and speeds up healing of the injured, inflamed tissue.

In case after case, while gently re-lieving pain, actual reduction (shrinkage) took place.

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This was accomplished with a new healing substance (Bio-Dyne) which quickly helps heal injured cells and stimulates growth of new tissue.

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Why Hatcheries Fail

THE MOST OVERWORKED cliché in farming today is that "we live in a time of change." The harsh reality of statistics can also tell the story of change in the poultry industry.

In 1954, Ontario's 400 hatcheries hatched 36 million chicks and 1 million poults. By 1963 only 120 hatcheries remained, hatching 20 million chicks for egg production, 50 million for broiler meat and 63/4 million turkey poults.

Why did so many hatcheries go to the wall and how do survivors exist in such a radical climate of change? Under the guidance of Prof. Harvey Pettit, of OAC, the Ontario Hatcheries Convention drew upon the experience of two homegrown survivors, a CDA adviser and a large competitor from the U.S.A. If there is a formula for survival, it is going to be tested in the years ahead; 85 per cent of the birds now hatched come from 30 hatcheries and the harsh realities of life still close 10 hatcheries a year.

Bob Eby, of the CDA, broke down the areas of profit potential in the hatchery-to-consumer chain. He found eight separate possibilities. He suggested that those hatcherymen who have survived have capitalized on several of these profit areas through some form of integration.

Allen Curtis, Port Hope hatcheryman, pointed to the impact of franchised hatcheries. He said, "If we had not gone to a franchised deal we'd be out of business by now. Two years ago we finally abandoned our own Leghorn sales. They had dropped to a mere 500 birds." Curtis now markets 1¼ million birds a year.

It is estimated that 75 per cent of all egg production chicks hatched now come from franchised producers. Most surviving hatcherymen have become multipliers or propagators of someone else's breeding.

Soils and Crops



Dr. F. J. Zillinsky, in the rust laboratory at the Central Experimental Farm, examines Garry oats heavily hit by rust. A recent scarch through the Mediterranean countries may provide rust-resistant strains for crossing with current varieties

[Gulde photo

The Search in Research

RESEARCH SCIENTISTS sometimes pictured as white-coated creatures way out on cloud nine. With such a picture in mind you would miss, by a wide margin, Dr. F. J. Zillinsky of the CDA Genetics and Plant Breeding Institute. Dr. Zillinsky, along with Dr. T. Rajhathy, recently traveled by boat, airplane, bus and on foot for 9 weeks through Italy, Greece, Turkey, Sardinia, Corsica, Sicily, Libya, Morocco, Tunisia and Algeria. The search across North Africa and around the Mediterranean was for indigenous plant species which might be useful in a Canadian plant breeding program.

With its moderate climate, the Mediterranean area has an environment in which plants car. grow all year. With year round growth, there is no necessity for the rust cycle to be carried on in a host plant, as is the case in Eastern Canada. Consequently the plant species which do survive in those countries visited by Zillinsky may be highly resistant to strains of rust. Emphasis in research has been placed on rust control, as rust has been such a major problem across Canada.

The search was concentrated on plants related, no matter how remotely, to the oat family. Relatives of wheat and barley were also sought. Several hundred plant collection sites were visited. Sometimes only three or four seeds could be saved from a plant. The plant material desired might be found growing in competition with weeds, or Zillinsky might have to move faster than foraging goats in order to secure the desired seeds. A further complication was the propensity of wild species to spread their seeds by shattering.

Back from his "seed safari," Zillinsky now has to classify the potentially precious samples. Then the small quantities of seeds must be increased and screened for suitability. The third step will be an international sharing of the seeds with other plant breeders. While there may be tensions in other spheres,

there is tremendous international cooperation in plant breeding research.

Such a seed bank as Zillinsky is helping to build, can be used to ensure that seeds are available for future requirements. Storage at low temperature and low humidity will preserve germination for some 5 years. Quite apart from the value of the material in rust research, varieties may be evolved which have higher protein or better lodging resistance. The answers, however, don't come quickly; it takes some 5 years to upgrade a native species to the point where it holds some promise for the plant breeder.—P.L. V

Fertilizers for Southern Alberta

CROPS ON IRRIGATED land depend more on soil fertility for increased yield than on any other factor, say scientists at the Lethbridge Research Station. Use of commercial fertilizer is one way of increasing the fertility of a soil. Its use in Alberta has increased 20 to 30 per cent annually, and there are now more than 20 different formulations on the market.

It has been known for some time that soils in the area lack nitrogen and phosphorus. Fairly sound fertilizer recommendations for the major soil types have been established for most forage and cereal crops and also for sugar beets and potatoes. These recommendations are summarized in Alberta Department of Agriculture Publication No. 70, which is available in Alberta from the local district agriculturist.

In recent years a very slight response from the use of potassium in some fields of potatoes, beans and sugar beets has been found. This can be expected because of the extensive continuous cropping of these soils. The information is not conclusive, hence potassium fertilizer will not be recommended for this area for the time being.

Except for manganese deficiency in some foothills areas, no serious

deficiency of minor elements exists in southern Alberta. Manganese deficiency is most noticeable in oats, where it causes a disease called gray speck. Symptoms of iron chlorosis are frequently observed on ornamental shrubs. Isolated cases of boron deficiency have shown up in sugar beets and alfalfa, but when the fields were adequately irrigated these symptoms disappeared.

Seek Resistant Alfalfa

A THREAT TO ALFALFA growers in Western Canada may be choked off as the result of work being done by scientists at the Lethbridge Research Station.

Alfalfa stem nematode was first identified at Lethbridge in 1950. Infected plants were sickly and stunted. Some leaves and stems were white. The nematode causing the trouble was a tiny eel worm, barely visible to the naked eye. These nematodes get into the crown buds which are in contact with the soil. They grow in the leaves and stems. They can stunt a plant so badly that it will not provide any hay. Infested stands become thinned out and unthrifty. The plants seem more susceptible to winterkilling.

The nematodes disappeared from Lethbridge after 4 years, but reappeared in 1958 in greater numbers than ever. This time there was evidence that the nematode was carrying bacterial wilt and helping to spread this disease. In Alberta, the alfalfa stem nematodes seemed to appear chiefly in frequently irrigated areas.

Fearful that this nematode will become more widespread, scientists are aiming to produce alfalfa varieties that are resistant to it. Varying degrees of wilt resistance have been attained in alfalfa varieties like Ladak, Vernal and Beaver. Nematode resistant varieties are known and used in the United States but none has proved sufficiently hardy for conditions of Western Canada. However, one of these, Lahontan, is being used in the breeding program in Canada to furnish nematode resistance under western conditions.

Two approaches to breeding are being tried at Lethbridge. One is to use a variety now being grown, that may contain a few plants showing nematode resistance, and to strengthen that quality by continued selection.

The other is the more promising method of crossing one of our good varieties with a less hardy nematode resistant variety. In this way the researchers expect to bring together the desired qualities of wilt resistance, hardiness and nematode resistance.

It may take 10 or 12 years to complete the project but the idea is to forestall the trouble by being prepared when the problem arises.

—Ed Swindlehurst

Frontier in Future

SEED OF THE NEW fall rye variety, Frontier, will not be available to farmers until late next summer. Frontier is a selection made at the Experimental Farm at Swift Current from a cross between the fall rye varieties Dakold and Pektus. It is as winter-hardy as the popular varieties Dakold and Antelope, but is higher yielding. Kernels are more uniform in size and color than those of Dakold and Antelope. When seed becomes available it will be distributed through the seed office of the Canada Department of Agriculture in Regina.

A Better Year for Soybeans



Donald Rankin, who has been with the DePutter brothers for over 21 years, combines a highyielding field of "44" soybeans, a variety still under test and not presently licensed

[Guide photo

ONTARIO'S 231,000 acres of soybeans have been generally favored by weather conditions this year. The quality of the crop is good, the moisture is low and the average yield is some 29 bu. per acre. The crop is well above last year's, and it will be nudging the all-time high of nearly 7 million bu. produced in 1959.

Contributing to the increase in yields are grower know-how and the use of newer varieties. Gillies De-Putter of Appin, Ont., for instance, topped 48 bu. per acre with a field of Harosoy 63. The U.S.A., our big competitor in soybeans, has a carry-over of 32 million bu. and an estimated production this year of nearly 700 million bu.—P.L.

Marketing

New 60,000 bu. capacity apple storage in N.B.

[Guide photo



Apple Growers Co-operate

Nineteen growers built this controlled atmosphere storage so they could sell their apples effectively

GROWERS IN New Brunswick completed the province's first controlled atmosphere storage on the eve of the apple harvest this year. The Keswick Ridge Apple Co-operative Ltd. was organized earlier this year under the provisions of the Province's Co-operative Associations Act. Nineteen growers banded together to finance the 60,000-bu. storage facilities which cost some \$150,000. Participating growers purchased whatever space they required at \$2.50 per bu., repayable over a 20-year period, with a down payment of 50 cents per bu.; grower requirements range all the way from 10,000 bu. to a cautious 320 bu.

Douglas Gordon, who sold his own farm to become the Co-op manager, says, "New Brunswick is not a big apple producer, but we badly needed better storage to provide continuity of supply. We believe that our co-operative will be very beneficial to growers. Damage and wastage will be reduced and handling costs will be cut, with the use of the 20 bu. bulk bins." Commission charges to cover marketing costs and operating expenses will be agreed annually at the start of each season. Actual sales will be made

PUBLIC LIBRARY FICTION FARMING

through the New Brunswick Apple Exchange at Fredericton.

The decision of the New Brunswick growers is in keeping with storage trends across the country. The Okanagan Valley in B.C. began a modest start with C.A. storage in 1956 and this season will have half a million bu. storage capacity available. Further expansion is envisaged.

A Pittance for Promotion

DONALD SHAVER, Canada's globetrotting poultry missionary, gave the Ontario Hatcheries Convention, which met at Niagara Falls,

some pointed comments on the promotion of poultry products.

The budget for the Poultry Products Institute, the promotional arm of the industry, has risen from a cautious \$11,000 at its inception in 1951, to \$70,000. "Such a contribution," said Shaver, "is still pitifully small and totally inadequate for the future well-being of every segment of the industry. This investment by the poultry industry represents a promotional budget of .00025 per cent of total industry sales. Wouldn't it be an idyllic state of affairs if we could all cover the promotional needs in our own businesses at this rate?"

The feed manufacturing industry contributed .00005 per cent of total sales, the hatcheryman .008 per cent. "Yet," said Shaver, "PPI's main problem is not money, it is communication. If PPI can reach the minds and the understanding of producers, hatcherymen, processors, distributors, the feed industry and allied tradesmen, we are convinced we would reach their pockets. Then the necessary funds would be forthcoming to enable PPI to increase its ability to reach the consumer.

"Every broiler magazine extols the virtue of one or other drug, medicant, etc., and figures of cost vary from .5 cent to 1.3 cents per bird. A conservative estimate of costs is a half cent per bird.

"If producers invested this same amount in promoting the products of their own industry, there would be one fund of \$625,000, alone."

The Poultry Products Institute draws support from six major divisions; hatcherymen, producers, the feed industry, processors, distributors and the allied trades. "It is bad enough," admonished Shaver, "to be driving a six cylinder car in the jet age. The sad part is we are not even hitting on all six cylinders."

Socrates is credited with the wisdom that, "Bad men live that they may eat and drink whereas good men eat and drink that they may live." Every segment of agriculture is locked in a fierce battle for a share of what these good men eat.

"The PPI," says its own indefatigable Spen Rodney, "has to get every inch of mileage it possibly can out of every dollar it spends because, somehow or other, every dollar has to do 10 times the amount of work it was designed to do."—P.L.

A ton of flax straw contains not quite \$5 worth of nitrogen, phosphorus, and potassium; wheat straw about the same, oat straw a little over \$5. In addition to fertility value, the organic materials are good for the soil.

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Mechanics

Treated Slat Floors Can Harm Young Pigs

Slatted floors made of lumber newly treated with some wood preservatives can be harmful, especially when you apply the preservative yourself

RESEARCHERS at a North Dakota Agricultural Experiment Station recently reported that baby pigs coming into direct contact with wood that has been newly treated with phenol-containing wood preservatives often sicken or die. Because most pigs are placed on slatted platforms after weaning, the North Dakota researchers have included in their studies the effects of wood preservatives on older pigs.

Thirty crossbred pigs, each weighing about 271/2 lb. were placed in three slatted floor pens, 10 pigs to a pen. One pen was made of untreated oak slats, 11/2 inches wide and placed % inch apart. This was used as the control pen. Another was made of slats, 31/2 inches wide and spaced I inch apart. These slats were treated with pentachlorophenol applied by brush and dried by exposure out-of-doors for I week before putting the pigs in the pen. The third was identical in construction to number one, but the slats were treated with a commercial wood preserving "Osmose" process. The formula for this process was: potassium bichromate 33.25 per cent, sodium fluoride 32.98 per cent. disodium arsenate 25 per cent, 2,4 dinitrophenol 6.3 per cent and inert ingredients 2.4 per cent.

Acute sickness was noted only in the second pen where slats had received a home treatment of pentachlorophenol. One pig was burned severely along the stomach and ham areas from contact with the treated lumber. It died 2 days after being put in the pen, and a post mortem revealed internal lesions identical to those caused by pentachlorophenol poisoning. All other pigs in this pen had skin irritations of varying degrees. All were off their feed and showed signs of depression for 3 to 5 days after being placed in the pen.

In contrast, the pigs in pen number three, where the slats had been treated with a commercial wood preserving process, exhibited only mild symptoms for the first 3 days. But the preservative stained their skin and hair yellow, and feed consumption was down for the first 7 days. Pigs on the untreated slats of pen number one showed no signs of poisoning, of course, and they consumed the greatest amount of feed. However, the daily feed consumption of all pens was nearly equal toward the end of the test.

An interesting sidelight to the experiment was the fact that pigs in both the first and third pens (untreated and factory treated) showed severe injury on the soles, coronary area and dewclaws of the feet. Pigs in pen number two, where the slats were wider, showed none of these ill effects. After the first 3 weeks of

the test, one side of the slatted floor of cach pcn was covered with a plywood sheet. The fact that the pigs fought for space on this covered area would indicate that full slatted floors may not be as beneficial as first believed. The fact that a good deal of feed was lost through the slats is also worth thinking about.

As far as wood preservative poisoning is concerned, the tests indicate that weaned pigs 6 weeks old or older suffer less damage if the slats have been thoroughly dried so that all surplus chemicals have been removed. They also show that damage could have been avoided if the slatted platforms had been scrubbed thoroughly with soap and water before the pigs were let in. Pentachlorophenal brushed directly onto fresh lumber appears to be the

method most likely to give trouble unless extra care is taken to ensure the slats are properly seasoned or dried.

If you intend to do your own treating of lumber used in structures for housing or feeding any livestock, or for storage of grain destined for human consumption, here are a few tips supplied by Experiment Farm researchers in Illinois:

1. Containers, brushes and other equipment used to apply your solution must be thoroughly clean. Do *not* use a brush or container contaminated with lead paints.

2. Use solution concentrates no greater than 2 per cent (copper metal) copper naphthenate or 5 per cent pentachlorophenol.

3. For diluting, use mineral spirits or a mixture of mineral spirits and diacetone alcohol containing not more than 5 per cent of the diacetone alcohol.

4. Allow 4 weeks for the diluent to evaporate from the treated wood before exposing your animals (especially young ones) to treated houses or feeding equipment.

5. Keep these chemicals covered and stored away.—C.V.F.

Commercial or Farm Built Grain Dryers?

A COMMERCIAL grain drying unit is an economical proposition for the average farmer only if he has a large volume of grain to put through. This is the view of Extension Engineer J. L. Reid of Alberta, who says that a complete unit ranges in price from about \$3,300 to \$5,500. Most units of this type are capable of handling from 100 to 250 bu. of grain per hour when drying from 20 to 14 per cent moisture content. Fuel costs, including tractor gas, usually vary between % and 2 cents per bu.

A farm built dryer is the alternative to the commercial unit. According to Reid, the main difficulty here is to obtain a drying unit consisting of a fan and heater designed to work together. The commercial cost of such a unit is between \$1,500 and \$2,500. An improvised unit, however, can be made on the farm for around \$200. Its capacity will probably be less than 50 bu. an hour and fuel costs could be twice as high as those for a commercial dryer on a per bu. basis.

In cases where drying is impossible or impractical, the grain can be conditioned for temporary storage at least, by moving it with a grain auger or elevator. Cold weather is the best time to move it. The cold outside layer of grain should be mixed with that from the middle of the pile. Cleaning the grain as soon as possible will help. Dust, chaff and weed seeds tend to hold moisture.

Reid says screened ventilation shafts have been used to dry grain with some success. The shafts can be made of a 1" x 4" board and two 1" square strips, assembled to form a cross and covered with fly netting. These shafts or flues are installed vertically through the grain about 2 feet apart in each direction in the bin. The bottom and top of each shaft is open to the air.

Plans for several different types of home-made grain dryers, including the slatted floor and the inclined column types, can be obtained from the Extension Engineer, Extension Service, Legislative Building, Edmonton, Alta.

Tractor Pulling Contests



The tractors are weighed in just like heavyweight boxers. Where tractor pulling contests have been held they have been a big hit with farmers. Is this something that would add a new twist to your fall fair?



Craftily balanced to keep the front wheels on the ground with a minimum of added weight, an Indiana farmer drives down the measured course, pulling the loaded steel sledge. Men jump on the sledge at prescribed distances until wheel slippage begins, at which time the distance is measured. The tractor in the rear of the picture will be used to return the sledge to the starting point ready for the next contestant. Farmers display their flair for mechanics by modifying standard tractors for greatly increased pulling power.—P.L. V

No Benefits from Temperature Control

HOGS RAISED under constantly controlled temperatures have not shown any significant differences in growth rates, feed efficiency factors, or carcass quality, from hogs raised under natural temperature variations.

Agricultural engineer E. S. Bell at Virginia Polytechnic Institute reports that four test lots of hogs have been grown under confined housing conditions. Some of the hogs have been raised under constantly controlled temperatures, but they have shown little difference from those raised under natural temperature conditions, he said.

Horticulture

New Dwarf Cabbage to Entice Shoppers

DWARF CABBAGE has increased the popularity of this vegetable with food shoppers says Dr. Charles Walkof of CDA's Experimental Farm at Morden, Man. Dwarf heads average 3 lb. and shoppers seemingly prefer the smaller heads to the conventional 8 to 10-lb. ones.

Now the Morden station developing three dwarf strains which will have heads ranging from ½ to 1½-lb. These, Dr. Walkof points out, will provide the limited amount of cabbage needed for salads and cole slaw in the average home and might even suggest new cooking methods to increase the palatability

of cabbage. He hopes the new varieties will be available by 1966.

The new strains - in ½-lb., 1-lb. and 11/2-lb. heads-have been tentatively named Pee Wee, Little Leaguer and Junior. All of them, Dr. Walkof says, are considered to be useful economic types.

His experiments show them all to be of good quality with a hard core and finely textured leaves. Whether they are used raw or cooked, flavor rates high. Cooked in the same manner as Brussels sprouts they retain both flavor and aroma.

Dr. Walkof reports that when the heads of early cabbage are harvested

there is sufficient time during the growing season for small heads to develop on the plant stumps. Three to five such buds may produce useful heads if soil moisture is adequate. Pee Wce, Little Leaguer and Junior, because of their early maturity, produce primary heads from transplants early in the season and secondary heads by September. The latter resemble Brussels sprouts in size and appearance and have a comparable flavor when cooked.

Commercial seed growers will be able to get stock seed, for multiplication and further distribution to other seed growers, from Mor-den as soon as the three smallheaded strains breed true. This should be within 1 to 2 years, according to Dr. Walkof.

New Raspberry Stock in Sight

AS THE RESULT OF recent advances in methods of virus detection and ways of obtaining virusfree plants from infected ones, Ontario raspberry growers will soon be able to obtain virus-free plants of red raspberry varieties suitable to Ontario conditions.

These plants are the result of Ontario's Raspberry Plant Certification Program. Certified plants from the program that started in 1962 will be available in the fall of 1965 at a cost in line with present prices. Growers who may be considering new plantings may wish to delay until this stock becomes available.

Latham, Carnival, Comet, Creston, Madawaska, Muskoka, Rideau, Trent, Tweed and Willamette varieties will be available in 1965, Newburgh and Viking varieties, in the fall of 1966.

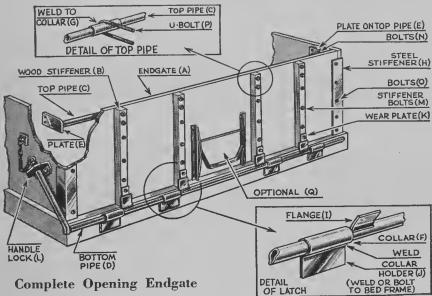
Under the certification program, virus-free plants are propagated under strict regulations. This includes isolation from other raspberries and regular insecticide applications to control virus-spreading insects. The program is a co-operative one between CDA and the Ontario Dept. of Agriculture. Horticultural stations at Vineland and Simcoe and the Farm Products Inspection Service, Toronto, share supervisory

Station researchers point out that

previous plantings have been severely infected with viruses which have, to a large extent, reduced yields and shortened the life of plantings. For this reason they strongly recommend healthy plants for new plantings. They point out that infected plants never recover but exist in a less vigorous condition. They can also infect healthy plants. For growers who do not wish to wait until the new stock is available, the present certified stock is considered the best available.

Further information regarding the program can be obtained by writing to the Experimental Station at Vineland, Ont., or the Farm Products Inspection Service, Parliament Buildings, Toronto.

Workshop



Complete Opening Endgate

This endgate can be made from plywood. The hinge is made from 11/2" heavy steel pipe with a handle of the same material welded to one end. To hold the pipe in place use four 6" collars welded to a plate. The plates are welded and bolted to the end of the truck

bed. The 1'' pipe is slid through the collars and 3'' x 2'' plates are welded to the pipe to act as fasteners by pressing against the wearplates on the tailgate. A plate, bolt and chain lock the handle as shown. -U.S. Dept. of Agriculture.

A Magnetic Hatband

If unhooking fishing flies from your hatband presents a problem,

try attaching several small mag-nets around the inside. You will find that they hold the flies securely and that they are easier to SMALL MAGNETS HOLD get at. — A.W., FLIES TO HAT BAND Alta.



Planter

If you save your used milk cartons you will find that they come in handy as a planter, or for storing small articles such as bolts. - J.F., use Alta.



QUALITY HOISTS

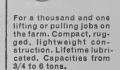


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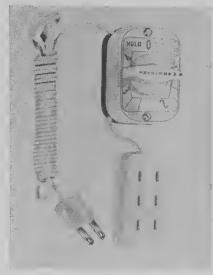
SASKATOON

Self-Spreading Package



This ice melting chemical is now available in a self-spreading package that is opened by lifting two small tabs on the bottom. The chemical is spread by shaking the box gently. (Speco, Incorporated) (497) V

Electric Timer



This combined extension cord and timer will control up to three appliances at once. The dial can be set for any time period from 1 minute to 4 hours. A hold setting permits use as a conventional extension cord. (Value Village) (498) \vee

Power Differential Lock

This differential lock operates by hydraulic pressure. Pressing the foot pedal opens a valve setting the hydraulic system into action. A touch of either brake pedal frees the differential for normal operation. (John Deere) (500) V



What's New

Liquid Spreader

This spreader keeps solids in suspension by means of an auger-agitator along the bottom while a 4-blade impeller throws the manure out through an adjustable manifold. It is loaded through double-hinged lids to 1,000 gallons capacity. (Hawk Bilt Mfg. Corp.) (501)

Interlocking Roof Panel



The V joint in this panel is designed to provide a nail-free joint with water barriers to prevent leakage. The joint is said to have withstood winds up to 140 m.p.h. (McCreary Products Ltd.) (502) V

Equipped with a 12-

volt ½ h.p. motor, this 4-inch auger operates from truck or tractor batteries. The downspout rotates 180° and telescopes from 6 to 10 feet. A pushbutton at the discharge end of

the spout permits full

per minute, this unit is said to be useful for filling hog feeders, fer-

control from the ground. Rated at 4 bu.



Outdoor Broiler

This lightweight propane - fired cooker is said to weigh less than 6 lb. It is designed to serve as a broiler in the upside-down position and as a source of heat for frying pan or coffee pot in the upright position. Broiling can be done in an aluminum foil "dish" on a flat surface such as a picnic table. (Paulin Infra-Red Products Co.) (503) V

Battery-Powered Unloader



grain drills. It eliminates the waste of shoveling expensive seed grains and fertilizer. (Wyatt Manufacturing Company) (499) V

For further information about any item mentioned in "What's New," write to What's New, Country Guide, 1760 Ellice Ave., Winnipeg 21, Man. Please quote the key number that is shown at the end of each item.

Feedlot Waterer



This automatic stock waterer will handle 175 head. It is a heavy-duty trough of extra-thick galvanized steel coated with black acid-resistant paint. Only 18½ inches high, it can be set on a 10-inch high concrete base for protection from hooves and cleaning equipment. (H. D. Hudson Mfg. Company) (504) V

Pink Tinces

by ROSSA WILLIAMSON

JANE STOPPED by the show window that was gaudy with Christmas, and her breath exploded in an ecstatic exclamation.

"What's up?" Dick looked at her in sudden concern.

"That dress, Dick! Look at it. Isn't it a dream?"

"Which one?"

"The *pink* one. The pale chiffon one," she said, as she waited for his reaction.

"Yeah," he said. He sounded bored.

"It's pink, Dick," she said softly, looking up at him hopefullly.

"Sure. And costs five times more than it's worth I'll bet. Come on, let's get moving." He jiggled her elbow impatiently. "We've still got to get that painting set for Nancy."

She walked beside him, hurrying to keep up with his long stride. So he had really forgotten the magic of that evening almost nine years ago when they had first met—a magic created partly by the pink dress she had been wearing. She had been eighteen, and the dress was long and bouffant and delightfully young. Someone had introduced them, and he had said, his dark eyes crinkling at the corners, "Since I was a little boy I've dreamed that some day I'd meet a real princess — a pink one."

She had opened her lips to answer in like vein, but somehow the words hadn't come, and she'd just stood there smiling and feeling as though she had wings. It was a delightful feeling and she'd felt it every time she caught his eye searching her out across the room and every time he'd broken in on her dances that evening. Pink Princess, he'd called her. My Pink Princess. He'd called her that all during the three weeks until he proposed, and all through their short engagement, and all through the wonderful time when they were first married.

Then, when they knew that Nancy was coming, he started to call her Jane, dear, and something in the way he said it made it even more beautiful than "Pink Princess." "Jane dear—," he'd say on the phone from the office, and she'd feel that his arms were around her holding her close and safe. But after Nancy came he nearly always called her Mommy, and the word was proud and loving and held the three of them in a warm little world.

There had been three more children after Nancy—Tommy, Douglas, and Baby Bunny. She was still "Jane, dear," at times, but mostly "Mommy." The pink princess was dead, quite dead. Even the lovely pink dress in the window

awakened no memories in him. Well, only an idiot expected such carefree romance to last for ever. Jane was happy with her husband and children, but that didn't mean that she'd forgotten the wonderful days when there'd just been the two of them.

Women, she thought, as his hand on her elbow propelled her strongly along, store up memories —a certain song; the ribbon off a first corsage; the flashback to a young girl in pink who had been a princess in a young man's eyes.

"For heaven's sake, Dick," she said crossly, "don't go so fast. I'm practically running."

He smiled down at her. "Sorry, Mommy. Maybe I should pick you up under my arm and carry you. I'm just in a hurry to get finished and get home to that good dinner you put in the oven."

"Men!" she said. "You don't think of anything but—but food and watching the games on TV."

He stopped abruptly. "You're tired, Mommy. You need a cup of nice hot coffee." His voice was gentle, just as it was when he spoke to the children when they got over-tired and cross. She was, she thought, just a member of his family to be patted on the head and encouraged when necessary. She was just "Mommy."

patted on the head and encouraged when necessary. She was just "Mommy."

A bus drew to the curb. "I don't want coffee," she said, close to tears. "You can buy Nancy's paints yourself. I'm going home." She caught a glimpse of his puzzled face as the crowd pushed her into the bus, and had the grace to toss him an apologetic smile.

SHE WAS ROLLING out dough for an extra batch of Christmas cookies. The children, brighteyed, stood around the table, each with a cutter of a different shape in his hand. Even Baby Bunny, in her high chair, waved a star-shaped cutter, although, at eighteen months, she didn't know what it was all about.

"What do you want for Christmas, Mommy?"

seven-year-old Nancy asked.
"A pretty cup and saucer, a potato peeler with

a yellow handle, a box of notepaper." These were the sort of things she always got from the children. "And a new clothes dryer."

Gord Bollins

This was the sort of thing she always got from Dick. Last year it had been a stove—a perfect stove with all the new gadgets. She knew he gave them to make things easier for her and she was grateful. But last year Monica Carswell got a mink stole and Bea Lawson got a wrist watch encircled with diamonds. And Jane Webster got a stove, to remind her that she was a housewife for the rest of her life.

"But what do you really want for Christmas, Mommy?" Six-year-old Tommy, the most sensitive of her brood, kneeled up on a chair to bring his blue eyes on a level with hers.

Rolling pin poised over the dough, she turned to look at him, amazed that one so young could be so perceptive. "What do I really want?" She closed her eyes, and she spoke in a fierce little whisper more to herself than to the children. "What I really want is something very beautiful and 'very expensive and absolutely useless. A swirly pink chiffon dress to dance in, and pearls for my throat . . ."

"O-oh!" said Nancy, in whose young breast romantic dreams already stirred, "and glass slippers, like Cinderella?"

Jane opened her eyes and laughed. "Yes, of course," she said, "the whole caboodle, glass slippers, pumpkin coach and all."

"And a prince?" Nancy said, eyes dancing.

"Daddy would be the prince," Douglas said. "Hey, when do we start cutting the cookies?"

She saw the big flat box under the tree at once as the family trooped into the living room on Christmas morning, and her throat constricted in expectancy. Then she recalled Dick's little jokes. Last Christmas there'd been a hat box and she'd wondered in horror what sort of impractical confection he'd wasted money on. But when she'd

opened the box there'd been a series of smaller ones inside and finally a card telling her to pick out the best stove in town. He was playing his little game again this Christmas, of

They all sat around on the floor and Tommy, who could read the family names now, passed out the parcels. The children, with yelps of joy, opened their gifts first.

'Now it's your turn, Mommy," and they gathered around to hear her exclaim over her cup and saucer, the potato pceler with the yellow handle, the note paper.
"Well," she said, pretending not to

see the big box, "I guess that's all."

"No, Mommy," Tommy was redfaced with excitement. "There's this

She drew it slowly toward her. "Oh, is this for me, too?"

'Guess, Mommy! Guess!" Nancy cried, throwing her arms around Jane in an excess of love and Christmas rapture.

Jane grinned across at Dick, who grinned back. "Why," she said, knowing that it would be an invitation to buy the best clothes dryer in town, "I'll bet a whole new shiny dime that it's a mink coat.

Douglas rolled over and over in glee. "It isn't, it isn't," he cried. "It's a . . ." But Nancy's hand clamped over his mouth.

"It's a magic carpet," murmured Jane as her fingers pulled at the ends of the silver bow that held the lid in place. "We'll all get on and sail away to the moon." She put her hands on each side of the lid and held them

there prolonging the children's frenzy. Then she closed her eves and slowly began to raise the cover that would disclose, she knew, still other boxes.

There were sounds of pure delight from the children, and she opened her eyes and smiled across at Dick. The smile was guileless because she knew he loved his little jokes. There was something in his eyes that reminded her of the way he'd first looked at her, and it made her heart beat faster.

SHE LOWERED HER GAZE and an exquisite shock went through her. She couldn't for a moment believe what she saw. For there, under a fold of translucent tissue, was a soft pink glow. "Oh!" she said, and with trembling hands swept back the tissue. For a fraction of time she sat motionless staring helplessly at the drift of pink chiffon. It was folded artfully so that all the little pleats in the bodice showed. It was the dress she'd seen in the shop window!

"Dick," she said in a little whisper, and looked at him through a sudden haze. "Oh Dick!"

He smiled back at her and it seemed for awhile as though there was no one else in the room.

Then Tommy's voice b r o k e through. "Put it on, Mommy. Put it on. It's what you wanted."

"Not now," she said and her voice wobbled. "Not with the dinner to cook and serve. After dinner, before you go to bed I'll put it on.

Dick was beside her, helping her

to her feet. "Do you like it, Jane dear?" he asked.

She put both arms around him and pressed her face to his. "I love it. I love it," she whispered. "And I love you too, darling.'

After dinner when the dishes were washed and the children began to look sleepy, she said, "Now, I'll go up and put on my lovely pink dress.

She would have liked to have taken time for the long, leisurely toilet that such a gown deserved, but tonight the children waited so she just ran a comb through her hair, powder over her make-up, and slipped on the dress.

It fitted beautifully - she was lucky she'd kept her slim figure and it made her look as glamorous as a princess. The Pink Princess. Had he remembered, or had the children told him of her wild wish? She didn't want to know because she was going to believe that he himself had remembered.

For a full minute she stood looking at herself in the long mirror. This was no plain "Jane, dear." No serv-This was an iceable -"Mommy." attractive, feminine creature in her own right. She felt wonderful.

NOW SHE WAS READY. She listened at the door. There was a waiting hush below. She went to the top of the stairs. Dick was standing at the bottom, Douglas's toy bugle in his hand. He raised it to his lips and blew a blast. "The Pink Princess!" he announced in resonant tones, "The fabulously beautiful Pink Princess!" And his eyes proclaimed that he believed every word.

Tremulously she started down the stairs, one hand sliding along the rail. She was aware of the children crowded in the living room arch, but she had eyes only for Dick. It seemed to be happening all over again, that wonderful evening when they had first met, when the world had been made for just two peoplea girl in a pink dress and a young man with dark, adoring eyes.

He held out his hand as she reached the last step and drew her to him, and kissed her. Then still with his arm about her, he turned to the children. "Children, may I present your mother, the Pink Princess.'

They crowded around her then, touching the soft material, quite overcome with admiration. Only Douglas held back for a moment. "You don't seem like Mommy," he said, his eyes round.

She bent swiftly to hug him. "But I am Mommy, darling." Comforted, he rubbed his face against her. "You smell good," he whispered.

Dick crossed to the record player and tripped the switch. He must have had it ready beforehand for at once the strains of a waltz medley filled the room. He held out his arms, and they danced, she with her head on his shoulder. It was wonderful. She was eighteen again and lovely and beloved. She was barely aware of the children watching with shining eyes, of Nancy shushing them into quietness. She closed her eyes and let herself drift in the dream of being a princess to the man she THE HOUSE WAS OUIET, the children long ago in bcd. In their own room, Jane presented her back to Dick to be unzipped. She slipped off the dress, hung it on a hanger, and flopped onto a chair. "Now, she said, "I can sit down."

"Sit down? Do you mean the dress

is too tight to sit in?

She shook her head. "Oh, no. But I don't want to wrinkle it.'

He took off his tie and threw it on his chest of drawers. "You really like it, don't you, Jane dear?"

You couldn't possibly have given me anything more wonderful. I. thought you'd forgotten the Pink Princess. I expected a clothes dryer.' She leaned back and smiled.

"I was going to give you a dryer. I thought you needed it. I still think you do. But . . . well, a dryer is for the whole family. I wanted to give you something just for yourself and when we saw the pink dress, well, that was it. Of course I hadn't forgotten the Pink Princess. I never will. She was a very lovely girl."

She smiled gently. "She was very young and sort of unfinished, wasn't

He dropped down on the floor beside her and leaned against her knees, reaching his arms over his head until they formed a half-circle around her. "She was a dream girl," he said.

She bent forward and rested her cheek on his hair. "And she turned into a plain old Mommy."

"She grew into a warm, complete woman, a bit contrary at times, but tops with me."

They sat contentedly for awhile. Then she said, "It's been a wonderful day, especially for me. I've never in my life had such a perfect gift. I've never felt so cherished. I love my pink dress," Her voice dropped to a crooning whisper. "Tonight has been one of my big wonderful moments. I'll never forget it. It was like the first night we met, and like the time I walked down the aisle and you were waiting for me. Our moments, Dick. Just the two of us."

His arms tightened about her. He dropped his head back until he could reach up and kiss her chin. "Jane, dear, I didn't know a dress could mean so much to you."

"It isn't the dress itself." She still spoke in that hushed way. "It's because you remembered and because you still think I rate such a fabulous She stopped speaking and rubbed her cheek against his hair. Then, "Dick," she said, "dear, darling, wonderful Dick, would you mind terribly much if we took the dress back-it isn't a bit crushedand got the dryer instead?"

He sat up so suddenly that she almost fell off the chair. "Mommy!" he shouted, his voice squeaky with

She began to laugh. She laughed at herself, at his baffled expression, she just laughed for sheer happiness. Yes, that's just it. Mommy needs a dryer more.

He stood for a long minute looking down at her, his hands ruffling his hair into untidy peaks. Then he, too, began to laugh. He pulled her to her fect into the rough but tender circle of his arms. "What a girl I married! What a wonderful, wonderful princess of a girl!"

Roll with the best!

MILD-**BUT WITH A** SATISFYING TASTE



Smoother rolling—by hand or machine

Home and Family

Christmas at Red River

by ELVA FLETCHER

THE STONE GATEWAY of old Fort Garry is all that remains of the lonely center that was the Red River settlement. Now, a few steps away, the busy thoroughfares of a modern metropolis carry ever-increasing traffic streams. In those early days, the settlement was 1,500 miles from the nearest city to the east, 600 miles from any other outlet to the rest of the world. One day recently, I moved inside the little tree-ringed park that surrounds the old gate, and my thoughts traveled back through time to those pioneer days.

I heeded the advice of Manitoba historian Margaret Arnett MacLeod. "Stand beside the gate under the starry skies at Christmas and listen," she wrote. "The city's hum dies down. The scene changes. Through the stillness of the frosty night comes the sound of tinkling bells as dog teams with loaded sleighs dash in from the country's icy wastes." Christmas music floated across the river from the church at St. Boniface then and young voices called from sleigh to sleigh to mingle with the swirl of the settlers' bagpipes.

From inside I could almost hear the sound of fiddles, of the spirited dancing and thudding of moccasined feet of revellers celebrating the arrival of Christmas. For, when Christmas came, Red River was a magnet for everyone within reach of its hospitable borders.

In the messroom inside the fort, flames from the huge fireplace at one end would cast long fingers of light on walls of startling color — bands of bright blue, yellow and red, topped by a vivid orange ceiling.

"Here many a sumptuous Christmas dinner was served and eaten with jollity," Mrs. MacLeod had recorded. One of the fort cattle would be sacrificed to the holiday spirit. I visioned it brought to one end of the long table as huge smoking roasts of beef. And I could almost see the great platters of fish browned in buffalo marrow, the still greater platters of game and such delicacies of the season as boiled buffalo hump, dried moose nose, smoked buffalo tongue and beaver tail that filled the festive board Mrs. MacLeod described.

But the climax of the feast was the Christmas pudding and the traditional pudding often seemed to keep alive the spirit of festivity at lonely posts in a lonely land.

I thought of the difficulties of the cooks of those early days. They had to hoard raisins and currants received in the spring shipment from England. Occasionally bread crumbs might be omitted. Sometimes such essential ingredients as eggs, milk or spices. Now and then pudding cloths of doubtful origin were pressed into service. There were even times, Margaret MacLeod has recorded, that the number of raisins and currants per person had to be carefully calculated. Sometimes necessity dictated that they be replaced by dried saskatoons. Ingenious the concoction might be, but spirits soared when the Christmas pudding was brought in. At times it would be enveloped in dancing blue flame.

Then the feasting would end. When the last fragment of pudding was finished, there would come to Fort Garry — and to every other post — the same silence as a hush settled over the festivities.

Margaret Arnett MacLeod has preserved a glimpse of our heritage as seen through the eyes and words of R. M. Ballantyne, a lad in service in the 1840's. "Hilarious mirth was succeeded by a grave silence. In the midst of our fun Mr. Grave proposed a toast. Each filled a bumper and solemnity reigned." Outside the wind blew over infinite desolate wastes. "He raised his glass and said, 'Let us drink to absent friends.' We each whispered 'absent friends' and set our glasses down in silence while our minds flew back to scenes of former days in a far land across the sea, and we mingled in spirit with our dear, dear friends at home."

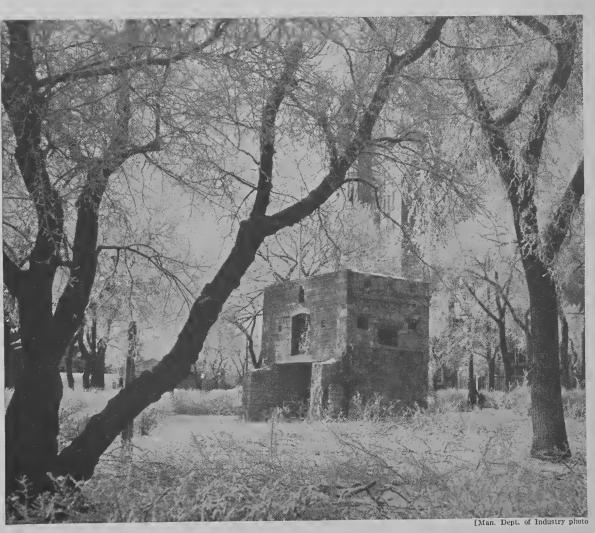
AND THERE WAS more than feasting. Christmas trees were "not an easy matter in a country devoid of toy shops." But "tinfoil and gilt paper were stripped from packages in the fort store and twisted into fantastic shapes. Bright beads and berries were strung for garlands. Slices of yellow soap were cut into hearts and stars and covered with gilt or colored paper. Candles were cut

down and fitted into small holders made by the tinsmith." And so the tree was decorated.

The holiday mood ruled for 3 weeks — from the week before Christmas until the week after New Year's. Every man who could, possessed some kind of horse or pony; and the horsemen vied with one another in gay carioles, brightly embroidered saddle cloths, sleigh bells, harness and fine clothes.

On New Year's Day horse racing was the big event. The Red River, kept clear by prevailing north winds, was a busy winter highway and on New Year's Day, the stretch near the fort was marked off as a race course. Shrieking children would careen down the river banks on improvised toboggans — frozen cow hides with the hair inside for warmth. Skaters near the river banks practised figures or raced—usually on homemade skates. Farther out on the ice, sleighs and carioles filled with callers bundled in fur robes traveled the winter road.

These days are gone, to be recaptured only in memory. But families still sit down to Christmas feasting. And they still preserve a link with the past in the traditional plum pudding, the toasts to absent friends, the warmth of the season's sentiments, and the lonely little Fort Garry gate. V



Liz and Lou Lanier took their old farm house, added some imaginative planning and lots of almost back-breaking work to come up with the home pictured above

Renovate the Old or Build

This family renovated



This is the attractive fireplace and hearth that the Lou Laniers built from brick hauled out to the farm from Lethbridge. They eleaned it first

The Laniers' picture windows almost bring the outdoors inside. The draperies, an open-weave linen, let light in even when they are pulled together



SOME FAMILIES CHOOSE to build new homes, others to remodel and renovate old ones. Elizabeth (Liz to her friends) and Lou Lanier took the latter course when they decided on a new home for their farmstead a few miles south of Lethbridge, Alta. They used the old dwelling on the farm property, added two sections to it with the result that there is practically nothing of the old dwelling to be seen because it's been absorbed into the fine new home that replaced it.

"When we eame here 11 years ago," Liz explained, "the old house was about 60 years old. It had no basement, no eupboards, not even a place to do the washing. The only thing in its favor was the fact that we learned from architect and family friend, George Watson, that we'd find it difficult to replace at today's prices. That was when we decided to remodel and enlarge it."

To Liz, a eity girl, farm life meant a eompletely new kind of existence. And life in the 24- by 40-ft. house, with its lack of conveniences, was a very real challenge. That's why she made certain of two things in the new-old home: lots of space in which to work and adequate eupboard space. "We tried to plan a place for everything," Liz says. "In the old house the only way we could manage was to give each of the children—Tommy, Sherry, Jamie and Robbie—a trunk. We lived in and out of those trunks."

Now there are shelves and hangers for outdoor clothing right at the back door. Lou's office is elose by and so located that, door closed, household noises won't disturb him. It, too, has drawers, shelves and eupboards in abundance.



Another corner in the living room. The graceful table came with the senior Laniers from Kentucky

In the master bedroom, ceiling-high folding doors conceal eupboards, some for elothing, others with drawer storage. The ehildren's bedrooms have good storage too. As for the kitchen, Liz made doubly sure there was a place for everything. "Not that everything is always in its right place," she laughs, "but at least I can keep it that way if I try."

One wall in the kitchen is faced with eeiling-high pantry eupboards. "They're wonderful," Liz says. And she's also enthusiastic about the builtin, lined bins that hold up to 50 lb. of sugar and flour. However, even now, after 3 years, there are some things she would change. For one thing, the hanging racks for pots and pans. "They're too noisy," she says, and "I'd substitute drawers or lazy susan storage for them."

There are no baseboards in the kitchen. Instead the vinyl flooring is earried a few inches up the wall. It's a lot easier to elean than conventional baseboard moldings according to Liz.

THE REMODELING itself was quite an experience. First of all, the old house was lifted to make way for the basement excavation. Moving the house was the least costly part of the entire remodeling, the biggest expense putting in the eement foundation and floor, Liz told me. When this was complete, the overall dimension had been increased by two additions, one 18 by 50 ft., the other 18 by 24 ft. Partitions had disappeared from the old house and its roof had been raised for bedrooms upstairs.

The Laniers chose to put big picture windows in both living and dining rooms. With so much glass, Liz looked for inexpensive drapery fabrie. Eventually she settled on open-weave white linen which eost her \$1.10 a yd. for the 50 yd. she needed. And she made them herself. The result is extremely pleasant for even when the draping is drawn, some light filters through. For the living-room floor she chose a simple eotton rug and "I wouldn't change it," she says.

Liz and Lou have a fireplace that forms part of a living-room wall. They built it of used brick they got when a bank building in Lethbridge was demolished. They bought the brick for a fraction of the cost of new material, hauled it to the farm and cleaned it. Then, with the help of a bricklayer, they built the ceiling-high fireplace and its long, raised hearth.

Lou, graduate and one-time physical educator at MeGill University, and since turned farmer, operates 2½ sections of dryland close to Lethbridge. He specializes in certified and registered seed, mostly crested wheat and fescue which he grows on a 3-year (Please turn to page 41)

House New One?

This family built

DIANA AND IKE, another Lanier family, chose to build a completely new home with big picture windows to take advantage of the scenic beauty around them. It's easy to understand the popularity of picture windows in this country for, as Diana points out, "this is the land of the big sky and every window frames a picture.

This land of the big sky lured the first Lanier to the Lethbridge district back in the early days when there was a great flow of settlers from south to north. As a young man he came into this vast new land from the older, gentler state of Kentucky in the southern United States, to carve out a new life and build "Kentucky Farms." For some years this was a family farm. Now sons Ike and Lou farm their own land and have built new homes for themselves and their families in the same community.

Ike and Diana had a lot of ideas of their own about what they needed in a home for themselves and their boys-6-year-old Will, 5-year-old Addison and Rod, baby of the family. They discussed their ideas with the same George Watson who helped the Lou Laniers plan their home and George put the final plan on paper for them.

"We like to think George used a lot of our ideas," Diana says, "but we did scale our building program down-for economic reasons-with the idea that we'd build one stage and add the remainder as we could.'

That's why the present blueprint looks to other additions in the future. For example, the present living and dining rooms will convert to master bedroom and den; living and dining rooms will be built to the east on the same level as the kitchen; and a small addition on the south will replace Ike's present office space off

Having decided on a split level design, the Laniers had to haul earth to build up the knoll on which one section of the house rests. But it was worth it, according to Diana, because it gives them full view of the mountains to the

This section contains living and dining rooms at ground level; three bedrooms and bathroom upstairs. In the living and dining areas, windows come down close to ground level; and the actual foundation appears inside as wide ledges. Sometimes these ledges are used for extra seating; and they're both useful and attractive when Diana uses them for the pleasing flower arrangements she creates herself. But the center of attention is the large double-sided fireplace that divides the two rooms, and the hearth that extends from it into a window seat on both sides.



FROM THE DINING ROOM, wrought iron railings dramatize the few steps leading up into the kitchen. This level is really the heart of the Lanier home, for here in a 24-ft. square area is the extra-large kitchen, the laundry room and Ike's office. In the basement below there's room for a walk-in freezer, cedar closets, another bedroom, furnace room and extra cupboarding for sports equipment.

"We eat most of our meals in the kitchen." Diana told me, "and that's why we wanted the living room as far away from it as possible. We felt it should be a place apart, where people could sit quietly away from the usual household commotion. Another thing about it," she laughed, it stays much tidier for a much longer time this wav.

Diana is convinced that a good big kitchen is a necessity on a farm. For this reason, the Ushaped kitchen is much larger than most and extends into the family dining area. "We eat most of our meals here," she explains. "There are six of us most of the time and we usually have a few more at meal time." But Sundays are special and they use the dining room then.

Her kitchen cupboards and counters are both efficient and attractive. For example, ceiling-high pantry-type cupboards on one wall save many steps; counters both wider and higher than most compensate for her 5 feet 7½ inches. A door from the kitchen opens into the combined laundry and (Please turn to page 41) sewing room.



pictures show the two faces of the doublesided fireplace that separates living and dining rooms in Diana and Ike Lanier's home. Diana and two of three sons demonstrate the comfort of the cushioned hearth as a viewing point for outdoors

by ELVA FLETCHER



Simple wrought iron railings dramatize the stairways leading to the kitchen and bedrooms upstairs



Diana and Ikc Lanier used vertical eedar board for the exterior walls of their new home. They have now eompleted one stage of a proposed building program

Let's Think It Over

by THE VERY REV. M. L. GOODMAN



Christmas or Xmas?

A few years back there were a great many "Bring back Christ to Christmas" campaigns. These developed in reaction to the supposed "commercialization of Christmas." The title, "Bring back Christ to Christmas," always seemed to me to be slightly presumptuous but the campaigns themselves had a real value. They usually proposed a program something like this:

- 1. Make sure your Christmas cards have a Christian greeting.
- 2. Read the Christmas story in the gospels.
- 3. Go to church on Christmas Day.
- 4. Have a picture or a model of the nativity scene in a central place in your home.
- 5. Invite someone who may be away from home to join your family in your Christmas celebration.

The list could be made much longer, but if we will do at least these things we will keep Christ at the heart of our Christmas.

Suggested Scripture: St. Matthew I, verse 18 and St. Matthew II; St. Luke I and II; St. John I, verses 1-14.

(Reference to title: "X" usually stands for the unknown quantity; or here for a Christmas that means either nothing or pure selfishness.)

Whom Do You Expect?

Memory takes me back to the days when, as the youngest member of the family, I looked forward to the arrival of older brothers and sometimes other relatives at Christmastime. Ours was a big family connection and with this in mind we were often asked the question, "Who do you expect at Christmas?"

The questioners might have been startled had we answered, "Christ -we expect Christ at Christmas." Yet this is the truth of Christmas.

Christ came to the world in the first place at least partly because He was expected.

Charles Wesley's hymn expresses this:

Come, thou long-expected Jesus, Born to set thy people free; From our fears and sins release us; Let us find our rest in thee.

Israel's strength and consolation, Hope of all the earth thou art; Dear desire of every nation, Joy of every longing heart.

Born thy people to deliver; Born a Child and yet a King; Born to reign in us for ever; Now thy gracious kingdom bring.

By thine own eternal Spirit Rule in all our hearts alone: By thine all-sufficient merit Raise us to thy glorious throne.

Christ still comes where and when He is expected. He comes into the darkest night — when He's expected. He comes into the deepest human need — when He's expected.

Suggested Scripture: Isaiah IX, verses 2-7.

Work Your Plan

It's seldom, if ever, that I get these paragraphs done on the day I plan to do them. Almost inevitably when I've set aside a block of time for this purpose, the phone will ring or a knock will come on the door and the cherished "plan" goes out the window. There are those who say you shouldn't make plans at all; you should just take life "catch-as-catch-can." There are others still who are such great planners and become so attached to their plans that you can't upset the plan without upsetting them too!

As usual, the ideal is somewhere in between. Certainly we *must* plan, but we should never lock onto our plan so that we become incapable of seeing anything else. Plans which become too important can take the joy out of life. They can also make us impatient and hard-hearted. Moreover, some folks are such chronic planners that they never seem to get to the point of *doing*.

Plan, yes. But don't let the plan take over. Be its master, not its slave. Suggested Scripture: St. Mark X, verses 13-16.

God in Christ be with you at Christmas. M.L.G.



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Summer Shade Trees Yield Baking Nuts

by GWEN LESLIE

GEORGE KERR, who farms near Dresden, Ont., is interested in nut trees. "If you're going to have a shade tree for the lawn and garden, why not a nut tree," he reasons. And so the shade trees on the Kerr lawn are English walnuts he planted 20 years ago. These trees yielded about three bushels of nuts this fall-an average crop.

Mrs. Kerr makes good use of her husband's interest in the nut trees by using the harvest in her baking. sampled her Chocolate Walnut Cake and copied the recipe for it which appears below. The two cookie recipes are popular favorites in the Kerr household too.

Japanese heartnuts, butternut trees, black walnuts and hickory trees grow on the Kerr farm as well. The hickory, Mr. Kerr maintains, has the nicest flavor. All nuts are picked up as they fall, and dried in shallow layers in baskets placed in the warm utility room off the kitchen. The hickory nuts need to be soaked in hot water for about half an hour before being cracked

The Kerrs' freezer is located in the same utility room and Mrs. Kerr tries to keep some of her "nut" baking ready in the freezer for her 4-H club girls group and for the family and their friends. I was interested to see tomatoes in her freezer too, a big plastic fertilizer bag full of them. "I don't can any more," she told me, "I freeze everything." Tomatoes are a commercial crop for the Kerrs. To freeze them for family use she first washes, dries and stems the tomatoes. Then she puts just a few at a time into the big well-washed plastic fertilizer bag in the freezer. She lets these freeze solidly before adding more. They freeze crystal-hard. To stew the frozen product to the family taste, she takes four from the freezer to the kitchen sink. Under a running tap, the skins peel off just like magic. She simmers them to a saucelike consistency in a covered saucepan over medium heat. She adds no water but sprinkles the tomatoes with 1 teaspoon sugar and ½ teaspoon salt. She serves them warm, and says, "We think they're

A shade tree can provide good eating too, according to George Kerr. The Kerrs' farm land straddles the county line between Kent and Lambton in western Ontario



Busy with many interests which include leading a 4-H homemaking elub and substitute teaching, Mrs. Kerr makes good use of her home freezer. In this photo she holds one of the farm-grown tomatoes she froze last summer



HOT QUAKER OATS! Best Warm-up to the Day Every bowlful contains all the food energy, all the nourishment of 100% whole grain. None of the natural goodness is lost in processing!

An all-round family favourite

cinnamon spice breakfast cake



Sift together, then

set aside.....4 cups pre-sifted

all purpose flour

½ tsp. cinnamon

½ tsp. nutmeg

1/8 tsp. powdered cloves

Scald.....34 cup milk

Stir in 6 tbsp. Blue Bonnet Margarine or butter

> 1/2 cup granulated sugar 1½ tsps. salt

Cool to lukewarm. Meantime, measure into bowl.....1/2 cup lukewarm water Stir in 2 tsps. granulated sugar

Sprinkle with

contents of....2 envelopes Fleischmann's **Fast-Rising Dry Yeast**

Let stand 10 minutes. THEN stir well.

Stir in lukewarm milk mixture. Stir in 1 egg and 1 egg yolk, well-beaten 2 cups of the spiced flour

Beat until smooth. Stir in remaining 2 cups spiced flour and, if needed, enough pre-sifted all purpose flour, (about ½ cup), to make a soft dough. Turn out dough on lightly floured board or canvas. Knead until smooth and elastic. Place in greased bowl; brush top with soft margarine

Cover. Let rise in warm place, free from draft, until doubled in bulk-about 11/4 hours.

Punch down dough; turn out on lightly floured board or canvas. Shape into an 18-inch roll; cut with sharp knife into 12, 11/2-inch pieces. Form into round balls; place side by side in greased 7 x 11-inch pan. Brush top with soft margarine or butter. Cover. Let rise in warm place, free from draft, until doubled in bulk -about 1 hour.

Beatuntilfoamy1 egg white

1 tbsp. cold water

Brush over risen dough. Sprinkle with

mixture of 3/4 cup firmly-packed brown sugar

1 tbsp. pre-sifted all

purpose flour 1 tsp. cinnamon

1 tbsp. Blue Bonnet Margarine

or butter, melted

Bake in preheated moderately hot oven (375°F.), 40 to 45 minutes. If glass ovenware is used, reduce oven temperature to 350°F.



When you bake at home use Fleischmann's and be sure

The second secon

fresher-tasting than canned toma-

Here are three of the recipes in which Mrs. Kerr uses their homegrown nuts.

Chocolate Walnut Cake

½ c. butter

c. brown sugar

egg, beaten

Pinch of salt

1/4 c. cocoa

1½ c. sifted all-purpose flour

tsp. baking powder

½ tsp. baking soda

c. sour milk

c. coarsely chopped nuts

Preheat oven to 350°F. (moderate). Grease an 8" square cake pan.

"I like everything at room temperature," Mrs. Kerr notes, "so I take any refrigerated ingredients out at night if I plan to bake in the morning."

Cream butter and sugar; blend in beaten egg. Sift salt, cocoa, flour, baking powder, and baking soda together, and add to butter mixture alternately with the sour milk. Stir in chopped nuts and pour batter into prepared pan. Bake about 35 to 40 minutes. Remove from oven to cool.

Mrs. Kerr spreads her cake with a topping of ½ lb. pitted dates simmered to spreading consistency with enough water to cover. Over this she spreads a thin chocolate butter frosting. "I find this is a cake that keeps moist, although it gets eaten so quickly I don't have a chance to keep it very long," she

Peanut Butter Cookies

½ c. peanut butter

c. icing sugar c. halved cherries, or mixed cherries and dates

c. fine coconut

c. coarsely chopped nuts
T. butter

tsp. vanilla

Mix ingredients together and roll in small balls. Dip balls in sweet chocolate melted with a little paraffin. Before the chocolate hardens, Mrs. Kerr presses a half hickory nut on top of each ball.

Jocomy Cookies

2 c. brown sugar

c. shortening

eggs, well beaten

tsp. vanilla

c. sifted all-purpose flour

tsp. baking soda

tsp. baking powder

c. oatmeal

c. coconut

½ c. ground walnuts

Mrs. Kerr puts oatmeal, coconut and nuts through the food chopper together. Then she preheats the oven to 325°F. (moderately slow).

Cream shortening and sugar together; blend in eggs and vanilla. Sift flour, baking powder and baking soda to-gether into shortening mixture, mixing to blend. Stir in oatmeal, coconut and nuts. Roll dough in small balls and place about 2" apart on a greased pan. Press balls down with a fork dipped in water to keep dough from sticking, pressing first up and down, then across to flatten cookies. Bake until delicately browned, about 10 to 12 minutes. Don't overcook.

Brussels sprouts, cabbages in miniature, come to the holiday table with a festive topping of pecan butter



Cabbage - Versatile Vegetable

IN MANY PLACES throughout Canada the ground is white with snow. But today's Canadians, unlike earlier ones whose Christmas is remembered on page 31, can still enjoy the vegetable variety of summer months. Rapid transport, improved storage and preserving techniques all contribute to the selection of vegetables available to us through the winter months.

Cabbage is one of the most versatile vegetables available to us year round. Every few months, some reader writes to ask for a recipe for the middle European dish Canadians call cabbage rolls. Our favorite Key to Abbreviations

tsp.—teaspoon

T.—tablespoon lb.—pound

c.—cup pt.—pint pkg.--package qt.—quart

recipe is on page 38. Cabbage in the form of sauerkraut teams with pork spareribs in another hearty meat and cabbage dish. And for a special festive dinner during this holiday season, we suggest you feature the delicate "toy cabbage" -Brussels sprouts-served with pecan butter.

(Please turn to page 38)



PATTERNS

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EXPERT FASHION FINISHES. It's the little finishing touches that distinguish the handmade garment from the one that may just look homemade. This leaflet offers illustrated instructions to help the home sewer give her sewing the expertly finished look. Bound buttonholes, the lined jacket, shaped collar, lining a skirt or dress, hems and hem finishes, interfacing a waistband, setting in a sleeve, and a choice of zipper applications are covered. To order this free leaflet from Butterick, just check the proper box on the coupon at the right, print your name and address clearly, and mail to either of the addresses shown.

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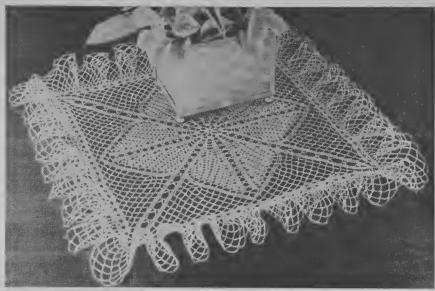


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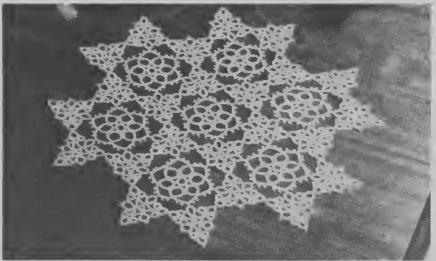
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Doilies



Leaflet No. D-135, 10¢, for crochet instructions for Zephyr, a dainty ruffled round doily 18" in diameter





The delicate tracery of tatting shapes a star patterned doily measuring approximately 9" in diameter. Order instruction Leaflet No. T-5991, 10¢

For handicraft patterns pictured above please address your order to Country Guide Needlework Dept., 1760 Ellice Ave., Winnipeg 21, Man.

IN THE KITCHEN

(Continued from page 36)

Cabbage Rolls

c. boiling water

1 tsp. salt

c. canned tomatoes 1/8 tsp. pepper

1 tsp. chopped parsley
34 c. finely chopped onion
1/2 c. chopped green pcpper

11/2 lb. ground beef

½ lb. pork sausage meat

1 tsp. salt

1/4 c. barbecue sauce

medium-sized heads of cabbage

Tomato juice

Preheat oven to 350°F. (moderate).

Cook rice in rapidly boiling salted cups of water. When just barely tender, drain and rinse with cold water. Melt shortening, add chopped onion and green pepper and saute 5 minutes. Add ground meat and cook until brown. Stir in salt, pepper, parsley and canned tomatoes. Add rice and cook 10 minutes.

Remove core from cabbage; place cabbage head in kettle of boiling water. When easily separated, remove leaves. Cut extra large ones in half. Place 1 tablespoon or more of meat and rice mixture near bottom of each leaf and roll leaf to enclose it. Secure with a toothpick and place in a single layer in a large baking pan or roaster. Pour tomato juice, seasoned to taste, over rolls to keep moist during baking. Bake in preheated oven for about 2

Spareribs with Caraway Kraut

3 lb. spareribs, cut in serving pieces

1/4 tsp. pepper

tsp. salt

28-oz. can sauerkraut (3½ c.) 2 medium carrots, shredded

unpared tart apple, finely chopped

1½ c. tomato juice

2 T. brown sugar 2 tsp. caraway seed

Preheat oven to 350°F. (moderate).

Season ribs with salt and pepper. Place in Dutch oven or roaster with cover. Combine sauerkraut and liquid with remaining ingredients and spoon over ribs. Bake covered in preheated oven for 21/2 to 31/2 hours or until ribs are done. Baste sauerkraut with juices from the bottom of the pan several times during the last hour. Serve with a spoon so as to get all the good juices too. Yields 4 to 6 servings.

Pecan Buttered **Brussels Sprouts**

1½ lb. (2 pt.) Brussels sprouts Boiling chicken stock 2 T. chopped onion

1/2 tsp. salt

½ c. coarsely chopped pecans

1/4 c. butter Pimiento strips

Parsleu

Wash and trim Brussels sprouts. Soak 20 minutes in salted water to cover (1 tcaspoon salt to 4 cups water). Drain and rinse with cold water. Place sprouts in a saucepan with boiling chicken stock 1" deep. Add chopped onion and salt. If chicken stock is not available, substitute chicken bouillon cubes, 1 cube to each cup of water, and omit salt. Bring to boiling point and cook, uncovered, 5 minutes. Cover, and continue cooking 10 minutes or until sprouts are just barely crisptender. Drain if necessary, and keep hot. Saute pecans in butter about 2 to 3 minutes, or until butter is golden. Pour over sprouts and toss lightly. Spoon into serving dish and garnish with strips of pimiento and a sprig of parsley. Yields 6 servings.—G.L. \vee

Do You Believe in Santa Claus?

by INGE VERMEULEN

I GREW UP in Germany where, for centuries, children have believed that the loving Christ Child himself puts gifts under the tree on Christmas Eve. As a newcomer to Canada I was at first unable, and then reluctant, to endow Santa Claus with the role of Giver.

My Canadian children, however, have no such doubts. To them, this jolly old fellow in his red coat is as real as the presents he brings. And so I have come to call Santa Claus the Christmas spirit. One thing I know. There is magic in the very air at Christmastime and it changes the dullest task, the most difficult problem, into a labor of love.

Look at finances, for example. All year long I fight a losing battle with the household budget. But, suddenly, in December of each year, I turn into a financial genius. I'm able, not only to balance the budget, but to squeeze out the nickels, dimes and quarters that will buy presents for my loved ones. There must be a Christmas spirit to coax me along.

I have a hunch Santa's spirit has its headquarters halfway between mothers' wallets and hearts during December. Pre - Christmas burgers taste better than the January ones. Or maybe it is the delicate fragrance of vanilla and cinnamon in our house that makes us more tolerant of ordinary meatballs and wieners. The good smells become especially tantalizing at Christmas baking time. It's then I use 10 pounds of almonds and nuts and at least as many hours to transform them into fruit cake, hazelnut strips, chocolate stars and a dozen other goodies. Yet, for 11 months of the year I am content with time-saving cake mixes. But this Santa Claus is such an old-fashioned spirit! He simply does not stand for such short cuts as leaving out my great grandmother's laborious recipe for almond cookies.

The children thoroughly enjoy this Christmas "workshop" and our kitchen hums with carols, laughter and excitement when our four youngsters do their Christmas baking. Their grandparents appreciate the love and labor in the crooked star cookies, decorated with wild abstract designs in colored icing. The Santa Claus spirit must be there. How else could they finish the job without the fights that accompany everything else done as a foursome?

I have come to believe that the Christmas spirit is the most enduring one on this earth. How else can I explain that I gladly consent to sew not one but 12 aprons for the Christmas bazaar and then, completely carried away, agree to make a dozen Christmas stockings? And when I deliver them to the bazaar I can be sure I shall be trapped again by sentimentality for the dolls on display.

For 360 days I pick up dolls' clothes and I promise myself never again to make new ones. By now I should know better than to go near a bazaar, for every year a magic

power, which must be Santa Claus, pushes me on to see the doll collection. It is irresistible. For where do I find myself? At the sewing machine, pushing aside the pile of pants that need patching to sew dolls' clothes even though I know I will have to pick them up again — without the mellowing influence of Christmas. But at this season, as I set in the tiny finicky sleeves, I'm grateful that I still have little girls whose delight will repay my efforts a thousandfold.

THE MOST UNPLEASANT chore is the Christmas house cleaning, which is really utter nonsense. It's a waste of time when you consider the sight of the house 1 hour after the

parcels have been opened. Yet, against my better judgment, and in the Christmas spirit, I cheerfully do it. Down come curtains and cobwebs. With a carol on my lips I attack walls and windows until everything is ready for the festive occasion. Finally, we get out the boxes of decorations and hang up traditional Christmas relics. They all come to life — the pretty angels from the store and the hand-made cuties from Grades 1 and 2. They get shabbier every year but I don't have the heart to dispose of them.

Once they are hung on the tree they, too, are touched by the magic of Christmas for they transform an ordinary tree into a thing of beauty. By Christmas Eve the room has the perfect mood. Under the silvery shimmering tree colorful parcels are piled high, ready to be opened. The snow falls softly in rhythm with the sweet sounds of Christmas music. All is ready.

I should be happy. Instead I usually find myself physically exhausted and emotionally drained of the spirit to which I've been slave for the past month. Is this worth all the effort I wonder.

the effort, I wonder.

Just then my doubts are answered. The gentle music swells into "Silent Night" — the most moving carol of all. And I find myself crying for sheer joy, just because it is Christmas.

Yes, I believe in Santa Claus with all my heart. It is the spirit which brings out the best in us, because the age-old miracle of love has touched us once again and sings out in our hearts:

Peace on Earth and Joy to Mankind!



A Quest for Growing-

A Career and a Life

by ETHEL CHAPMAN

"SOFTEN WHAT IS HARD in us; harden what is soft; broaden what is narrow; deepen what is shallow." Surely this is a petition for anyone, but especially for youth—it is so clearly a quest for growing. We used it in a discussion at the Ontario conference for senior 4-H Homemaking Club girls this year, applying it to such things as careers, a sense of values, human relations, especially the social relations of young men and women.

Our discussions of careers left no doubt that the prospect of work they like—or that they are sure they will like—has an important place in the plans of young people. Most of the girls had already decided to be teachers or nurses or office workers or airline stewardesses or home economists or to go into medicine or psychology or social work. One hoped to be an archaeologist. Several wanted to work with United Nations. One is taking nurse's training with a view to joining the Peace Corps.

When they were asked why they had chosen a certain vocation, it was interesting that not one mentioned salary. Later one girl said: "If you're thinking first of the salary and the holidays that go with a job, it's for sure you're not in love with the work itself." Somehow they knew that to be in love with our work is one of the joys of a lifetime. And most of them had a sense of voca-

tion—they wanted work with a purpose, something helpful to other people. They agreed that if the work we want meets this requirement, and if we have the ability for it, it is a mistake to settle for anything else even if this means disappointing the family.

If funds for university are not available, the student should inquire about bursaries and scholarships and loans, the girls said. It was amazing how much they knew about these, and how much more they will soon know about government loans to students.

But what if we haven't ability for the work we want to do? What if a girl has set her heart on being a doctor but can't pass the science examinations? It was suggested that she might find something of the same opportunity for service and the same fulfillment for herself in such related professions as nursing or physiotherapy.

Suppose a girl wants to be a doctor and her father sees no sense in spending money on such an expensive course for a girl "because she'll only get married anyway"? What arguments could she use? The girls were quick to see that even if the girl did marry she might go back to her practice after her children had grown up; or that if she should be left a widow with a family to support, her profession would give her not only a good income but interesting work - about the best of all antidotes for loneliness. It did not occur to them that she might never marry and that in medical work she might have a tremendously interesting life. Girls under 20 seldom think of this possibility.

AT THESE CONFERENCES the girls hear a good deal about the uncertainty of employment for any (Please turn to page 40)

ETHEL CHAPMAN

As we head toward a bright, new year we thought you might like to know what other young people are thinking about such things as eareers, friendships, even marriage. And so we asked Miss Ethel Chapman to tell you about the talks she had with a group of 4-H'ers earlier this year on these subjects.

Beeause they have shared their ideas, ideals and dreams with her, many 4-H'ers and high sehool students know Miss Chapman as a friend, counsellor and eonfidant. She's all these; and she is also a leader in Ontario's farm eommunity.

We're sure you'll find her articles in forthcoming issues of Country Guide informative and inspiring. There are four of these articles to eome.—Ed.

A CAREER AND A LIFE

(Continued from page 39)

one without training in some specific line. But it is doubtful that any young person can fully understand the threat of automation to the unskilled worker; a man's fear that a machine will soon be invented to do his work on an assembly line, or that even with a trade hc needs a basic education to enable him to keep up with the changes that may affect it. So we have school dropouts, more often among boys than girls. A boy wants money to spend and a car to take a girl out, so he must have a job right away, even if it is a job that will give him neither satisfaction nor security nor opportunity for advancement nor ever enough income to provide for a family. The question here for girls is, "Can a girl do anything to en-courage a boy to stay in school?" She can do a great deal, especially if she is the girl he wants to take out in the car he wants to buy.

Another question came up. What about the common custom of a girl giving up her own education to marry a boy and take a job to put him through university? Whatever some of these girls may do later, there was a general protest that this is unfair. It spoils the boy and makes him dependent. It cheats the girl out of growing into the woman she might be with more education and a challenging profession. And later the man may feel he has outgrown his uneducated wife.

Can a woman combine a career and marriage? There was some difference of opinion here. The hopeful thing was that no one seemed to overlook the needs of children. And because the debate was so entirely in the interest of a good family life, (the final agreement was that we should have a high standard and each try to reach it in our own way); and because the question concerns husbands and fathers as well as wives and mothers, it might make an interesting study for young adults in church groups or Junior Farmer Associations.

Some of these concerns may seem a bit mundane after the wide horizons of our first look at careers in the dreams of youth; but we came back to this again, to careers where men and women give themselves to a great cause; and to the not surprising fact that usually their inspiration came to them while they were still young-young enough to have a daring spirit and a heart not yet callous to injustice and suffering. Lincoln's resolve to free the slaves was not made after he became President. It began when, as a lanky young rail-splitter, he saw a slave girl sold at auction and said, "If I ever get a chance to hit that thing I'll hit it hard." The dreams of youth give direction to a whole life.

If you have such a dream, hang onto it. Perhaps you can begin to live it right now, but your big job is to train for the years ahead. It was wise advice Ibsen gave to a young man in one of his novels: "There is no way you can benefit society more than in coining the metal you have in yourself."

(The first of a series)



The Strangest Santa Claus

by MARY ELIZABETH LEMKE

IT WAS CHRISTMAS EVE, cold and starlit, and Hoppy, the big snowshoe rabbit, felt as gay as the dancing northern lights. He smiled to himself as he bounded over the fresh snowdrifts and rapped sharply on the sparkling arched door of the Snow Fairy's palace.

Hoppy visited the Snow Palace each Christmas Eve. This was because the elves and brownies always had a gift for him. Just the kind of gift he loved — a bunch of crisp carrots and a head of cabbage from the palace root cellar. When Hoppy called during the year the elves





and brownies were always busy making toys and games and candy. Busy people are often grumpy and Sandy, the sober elf, would mutter something about "that mooching cottontail." Unless the kind-hearted Snow Fairy herself was around, Hoppy usually went on his way without any treats.

But on Christmas Eve, no one worked at the Snow Palace. By then Santa's loaded sleigh was already on its way across the night sky and the elves and brownies were merry because their job was finished for another year.

Tonight, as the palace door opened, Hoppy knew something was wrong. Twinkle, the littlest elf, stood there, sad and downcast. He muttered, "Oh, it's you. Come in, I guess."

As Hoppy entered he was surprised to see that even the Snow Fairy looked as if she'd been crying. Hoppy forgot all about the gift he'd been expecting. "Whatever is the matter with everybody?" he asked, his long ears twitching with concern.

"Oh Mr. Hoppy," the Snow Fairy exclaimed, "a dreadful thing has happened. Last month a trapper and his family moved into a cabin on Ptarmigan Creek. Mr. Snowy Owl told us about it. But we forgot to





tell Santa. He always depends on us to tell him of any newcomers here in the north. There are two little girls in that family and they won't get any gifts tonight."

"Oh dear me," was all Hoppy could think of to say.

"Sandy tried to take the gifts earlier tonight but the snow is so

fresh and deep and he's so small he had to give up," the Snow Fairy finished with a little sob.

"Well, I guess I'll be going," Hoppy mumbled. He didn't want the Snow Fairy to think he expected his usual Christmas treat. Not when they were all so upset. Then Hoppy had an idea. "Hey," he said, spinning around on his haunches, "why couldn't I take some gifts to those children? My feet are made like snowshoes so I can go over any snowbanks. And I know just where that cabin is."

EVERYONE BRIGHTENED up like the flash of a falling star. And such excitement followed! They made a packsack for Hoppy. Into it went two small dolls, doll clothes of all kinds, books, candies, nuts. When it was packed, they tied it on Hoppy's back with a big bowknot.

"When you get there," the Snow Fairy said, "just pull the long end of the ribbon with your teeth and the pack will come untied."

Hoppy smiled at them. Then he was off into the cold December night. He soon discovered that the journey would not be easy. The pack became heavy and awkward. It made him clumsy. Once, as he came down a big hill, he broke through a drift. By the time he got





back on top of the snow, he had to rest for several minutes until his breath came back.

He hopped more slowly now because he was very tired. He began to worry that perhaps he would not get there before the little girls woke up.

He struggled on and at last his pink nose caught the scent of wood smoke from the cabin chimney. He decided to hop down to the river ice. It would be a little farther, he thought, but it should be easier.

Then it happened! One of the long ribbons holding the pack in place caught on a branch. The jerk untied the knot and all the carefully packed gifts spilled over the snow.

Poor Hoppy! He sank down on his haunches, tired and discouraged. Well, he had done his best. He turned away and took three tired hops in the other direction. But he couldn't help thinking of the Snow Fairy's sad face. And how disappointed the two little girls would be.

THEN A PLAN popped into his head. He knew he couldn't load the

gifts again. But he knew he could carry them in his strong teeth one at a time. He hopped back and picked up one doll. Down to the cabin he hopped with it. He came back for the other doll; next he took the clothes. His teeth hurt and his legs ached but he kept on until the last small gift lay in a neat pile on the front doorstep of the cabin.

As he paused there, panting, he heard sounds inside the cabin. He grinned a tiny grin and thumped hard on the cabin door with his long hind legs. Then, with the last of his strength, he hopped back down the trail to the nearest clump of trees and sank down to rest.

He was far too tired to hop back to the Snow Palace to claim his Christmas treats. But he really didn't seem to care at all. This Christmas he had been able to give instead of get. He had been able to make someone happy. And that, he thought, must be what Christmas meant because he had never been so happy before.

Puzzle Corner

Find the Birds by HELEN PETTIGREW

2	A	G	J's
С	E	L	R
R	0	W	E
В	I	N	В

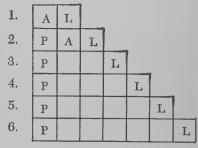
Beginning with any letter, move one square at a time in any direction, using the letter as often as necessary so long as it has been reached from another square. How many birds can you find?

Answer

Owl, Wren, Oriole, Robin, Eagle, Crow, Grebe.

Stairway Words by LAURA D. CROCKETT

In these puzzles, fill in the squares to make the words given in the clues below.



- 3. A loud sound
- 4. Part of a flower

Answers

5. More than one

Not total

3, Peal; 4, Petal; 5, Plural; 6, Partial.

SWINE INDUSTRY (Continued from page 6)

specific diseases which are involved. Then, when breeding stock can be certified as being free of specific diseases such as atrophic rhinitis, or virus pneumonia they can be sold as such. If they are known to have certain diseases, these can be so identi-

As an aftermath of last April's Hog Improvement Conference sponsored by the Canadian Federation of Agriculture, a provisional board has been set up to co-ordinate work n the various provinces.

One of the main jobs facing the wine industry today is to develop reeding and health programs which vill give buyers a more precise idea f the health and breeding ability of the stock they buy. This could be project for this provisional board, one on which it could report when t calls a further conference, which may be in the fall of 1965.

LIZ AND LOU LANIER (Continued from page 32)

rotation, and, as he explains it, "enough stock to make an economic

unit.'

Stock at all the Lanier farms includes saddle horses because the Laniers love to ride. Take 12-yearold Tom, for example. He's already experienced the thrill of trail riding with boys of his own age group. This year he won first place in one of the junior sections of the Arabian Horse Show in the district.

Liz and Lou didn't stop with the house remodeling. They planted over 1,000 trees and shrubs of varius kinds as an attractive frame r it. "And to think that I didn't ke all the trees in Ontario," Lou ays ruefully, when he looks over plantings they have watered egularly by hand and which they irrigate three times a year.

Today, the end result of this comination of old and new is a gracious ome designed for the best in family iving.

DIANA AND IKE LANIER (Continued from page 33)

Diana chose somewhat unusual floor coverings and so far they have ustified her selection. There's vinyl cork in living and dining rooms and ownstairs hallways. She praises it because it's so easy to care for.' The kitchen floor is vinyl linoleum. Upstairs she has sisal covering in the boys' rooms and the hallway to muffle noise, and a rug in the master edroom. They're all in the earth olors she likes.

The Laniers grow cereals crops for the most part but they do have some stock. Diana graduated from the University of Alberta but Ike went farther afield, to Queen's University for an arts course. But then, farming in his blood, he studied agriculture at Ames, Iowa. Now he's putting that training to use right at home. Last year they incorporated. their 3-section farm as "Neveridle Why "Neveridle"? Diana grinned when I asked her. "Well, ou're never idle on the farm. Even the weeds never stop growing."

And if present plans materialize the new home will grow too. V

News Highlights

(Continued from page 9)

Economics and Statistics Branch, Saskatchewan Department of Agriculture, in prefacing his summary of the discussion at the Saskatchewan Egg Conference in Regina Novem-

"We could be pessimistic. We could be optimistic. We must be realistic." With this admonition, A. D. Davey, director, Poultry Division, Canada Department of Agriculture, began his review of Saskatchewan's egg industry problems as they relate to the national industry.

The Saskatchewan Egg Production Marketing Conference was called by the Saskatchewan Egg Board to review the conditions of the industry, the problems facing it and any recommendations for improving egg production and marketing in Saskatchewan.

The briefs presented were realistic in their assessment of the problems of the Saskatchewan egg industryproblems of low quality, fluctuating supply, short supply of quality eggs, and lack of producer specialization. Grading standards, grading methods, and grading costs were questioned. Finally, lack of leadership in the industry, lack of co-operation, and distrust between industry segments were listed as factors leading to the present condition of the industry.

The briefs were not only critical They were constructive. All segments of the industry were challenged to make improvements and changes. The hatcheries were called on to smooth out the seasonal fluctuations in bird numbers, to advise producers regarding the type of birds to purchase, and to move out of the brooding and rearing business for health and sanitation reasons. Producers serving larger centers were asked to co-operate for planned production; in smaller centers, to gear their enterprises to the market; and in all areas to improve the supply of top quality table eggs. Distribution organizations were told of the need for reduced grading costs, streamlined grading and distribution methods, and aggressive sales and market service. Government agencies were challenged to provide more extension assistance for the specialized producer and asked to review the grading regulations.

The conference recommended several specific steps that the in-

"I don't know what could be wrong to make it ride so rough."

dustry must take if it is to win back the Saskatchewan table egg market and stabilize the breaker egg mar-

- All segments of the industry must be made aware of the possibilities of improved production methods, co-operative market planning, and aggressive selling.
- The grading standards should be reviewed. If possible, eggs produced for the breaking trade should not be subject to the costs of grading for the table egg market. For the latter, other methods of assessing quality in addition to candling should be considered. Where feasible, table eggs should be produced under controlled conditions to ensure high quality.
- Credit agencies should be told about the possibilities in the egg industry and more information about credit sources should be passed on to producers who may wish to borrow for expansion.
- The final recommendation was for a poultry industry council, formed of keen representatives from all segments of the industry, to provide leadership to the industry. A motion was recorded asking that such a council be called together shortly.-R.F.

Award Winners



Editor Peter Lewington (left), who was a double winner in this year's Canadian Farm Writers' Federation Annual Awards Competition, receives an award from Norm Hansen, CBC Vancouver, during the Federation's annual convention in Toronto. Lewington won the Award of Merit for his editorial, "A Place in the Sun!" which appeared in the

Country Guide Field

June 1964 issue. He also won Honorable Mention in the Press Feature category, for his article, "Fat Bulls – Thin Wallets," which appeared in the May 1964 issue of Country Guide.

Other winners included Frank Jacobs, Editor, Canadian Cattlemen, who was awarded an Honorable Mention for his report, "Down Under . . . A Threat to Our (Beef) Market."

Gains 457 lb. in 140 Days

A CO-OPERATIVELY owned A.I. bull now holds the daily gain record for Angus on Ontario Performance Test.

Sunmound Eston Blackcap, bred by W. L. Knowles & Sons, Byemoor, Alta., purchased as a calf by Central Ontario and Waterloo Cattle Breeding Associations and



was placed on test at the government test station at Arkell in Ontario. He gained an average of 3.26 lb. per day, for a total gain of 457 lb. over the 140-day test period. His yearling weight was 1,036 lb., and he came off test weighing 1,155 lb. at 407 days of age.

A.I. Price Freeze Thaws

THE DEVELOPMENT of the A.I. industry in Ontario since the war has been remarkable in several respects, not the least of which has been the stable cost of the service, in the face of inflation. Year after year, the increase in the volume of business was adequate to off-set rising costs of operation. More recently the development of semen sales to other parts of Canada and abroad gave the breeding co-operatives a further cushion.

Now, with business tapering off and greater investments being required for liquid nitrogen storage and for more ambitious and effective sire proving programs, service fees are being increased. Says one unit, which is endeavoring to balance its budget by increasing the service "Even with this small increase in the service fee we firmly believe that nothing you buy for your farm operation today gives you a greater percentage of return than the service fee for the cattle in your herd."-P.L.

SIGNPOST FOR SURVIVAL

The Specific Pathogen Free bird program is carried out as a cooperative venture between the Animal Disease Eradication Division of the United States Department of Agriculture, the Maine State Department of Agriculture and the Department of Animal Pathology at the University of Maine. Before a farmer can enroll in the program he agrees to 30 conditions. This formidable list includes the following:

- No dirt floors; houses must be screened and locked.
- Bulk feed must be used and the bins filled from outside the building.
- The buildings must be isolated from possible sources of infection and a strict sanitation program must be followed.

- Only mutually agreed vaccinations and medications may be used.
- No other birds or animals may enter the building; only one age group of birds may be kept at any time
- Only essential visitors are permitted and a log book must be kept of such visits.
- Birds can only be sold or disposed of after prior permission of the disease control agencies.
- Chicks must originate from clean flocks and be delivered in new cartons by attendants in freshly laundered coveralls.
- Disease control agents have the privilege of entering the poultry houses

In spite of these stringent precautions, there is a waiting list of Veterinarians working with farmers on the new health program change into freshly laundered eoveralls before entering a poultry house



[O'Meara pho

farmers wishing to participate. Says Chute, "We're wasting our time in even discussing the program unless the farmer is prepared to carry out all the precautions. The benefits of the program are sufficiently attractive that nobody wants to get cut off. In commercial agriculture the value of germ-free stock is questionable; however, 3 years' work has shown that an SPF program for poultry is practical. One of our integated operations is already hatching 200,000 PPLO - free chicks every week."

To raise broilers and produce eggs free of the costly and debilitating ravages of respiratory diseases is a

worthwhile goal. It only happens good poultrymen who want to be come even better ones. The sam level of careful management has to be practiced by the hatchery, the flock owner and the grower. Each link in the production chair has to be strengthened by inter ested pathologists, laboratory stat and extension people. The patient, plodding work of creating an environment, free of several wasteful diseases, has to be backed up veterinary inspection at processing plants. If there is a moral in the Maine experiment it is that diseases don't just happen, they are caused by cutting corners in management. V

Letters

Interest in "Damage"

I thought you might be interested in knowing that we have received, as of October 8, 127 requests for the "Damage" booklet as per the following provincial distribution: B.C., 7; Alta., 40; Sask., 27; Man., 13; Ont., 33; Que., 4; N.S., 2; and from the U.S.A., 1.

As well as sending booklets with a covering letter, we are also forwarding to the provincial Federations of Agriculture the requests we receive in the hope that it might encourage them to move toward providing their landowners with a similar service to that which is being offered in Ontario.

I wish to extend to you sincere thanks, both organizationally and personally, for your promotion of our work.

Donald W. Middleton, Director of Properties, Ont. Federation of Agriculture, Toronto.

Calamitous Heritage

We must agree that dueks and farmers have always battled to reap the harvest (Duck Hunting-a Disappearing Sport, Country Guide October 1964), but surely when the farmer seeks to improve his farmlands and his livelihood in utilizing his land for food production this can't be called selfish use. Mr. Quigley speaks of the stubble shoot as part of the farmer's heritage. The stubble shoot belonged to the days of harvest by binder and stooking. Today the duck lives on the harvest swath. The stubble shoot has disappeared. Duck shooting may be a heritage to some, but to many farmers it's a heritage of calamity.

Then there is the fantasy of lure crops. While a duck can waddle and tramp real good, he does prefer to use his wings for travel. He may feed many miles from the water upon which he floats to rest his distended and bloated gut. When these rapacious predators of the skies swarm in their thousands down upon a field

it very quiekly suffers appalling loss. How long would a few stingy acres of lure crop last?

Let it be clearly understood that ducks cause very intensive damage to the farmer's crop. On a swath, they eat much, thresh out and waste a great deal in the process of shoveling it in, and effectively tramp much of the rest down into the stubble and ground. The remainder of the swath they decorate with feathers and down, and pollute with exerement.

It is very doubtful that you can successfully scare ducks off or away from your field. If you do, you have merely passed the buck—or rather the duck—to your neighbor. The ducks will eat on some farmer's livelihood.

Insurance against duck damage is inadequate and unfair when it places a charge on the farmer. The solution is simple: the farmer should be fully compensated out of public funds for damage done his crop. It's done in other cases. Too long have farmers been required to provide for these pests.

H. E. Brathen, Carruthers, Sask.

Mr. Average

The Country Guide prints good articles and stories about successful farmers alright, but never much about the struggle of Mr. Average, whose luck evades him most of the time, who despite hard work and long hours does not get ahead as he would like. Our economy just does not give him any favors. He can't get any farm help and has to ask his wife - mother of a large family for instance - to drive the tractor at baling time or the truck during harvest, while the children have to be left without supervision. Mind you, we would not want to work for anyone else. We are very happy to be our own boss, but why don't you print stories about the hard struggle of Mr. Average? Would you lose readers because it is an old well known story?

Mrs. J.O.B., Luseland, Sask.



HI FOLKS:

Tcd Corbett is a real pessimist when it comes to Government financing. When I told him I was going to give my oldest boy a Canada Savings Bond for Christmas he swore I was teaching the kid bad financial habits that would someday land him in the poorhouse.

"Everybody buys Government savings bonds," I protested. "It's just like money in the bank, and you get a heap more interest. If you get in a spot and need money you can cash it anytimc."

"I never did figure you were very bright," he said sadly, "but I thought you had more sense than to fall for that one. Just what do you figure the Government does with this here money they offer to give you over 5 per cent on? Do they invest it at 10 to 12 per cent so they can show a handsome profit?"

"You know what they do - they spend it."

"Aha," he chortled, "now we're getting somewhere. And what happens to anybody who keeps spending money they have to borrow and pay a husky rate of interest on?"

I was going to answer that they land in the poorhouse, but I caught myself in time. "Go jump in the lake!" I told him.

"I can just picture the scene down in the Receiver General's office," he said, leaning back in his chair with his hands behind his licad. I could see he was really enjoying himself. "You notice they call him the 'Recciver.' That's because he just sits there and receives and receives and receives.

"Well sir, I can just see him sitting there when along comes a clerk with your letter saying you wan your hundred dollars back.

"'Give it to him—give it to him, the Receiver would say testily.

"'But we haven't got it!" the Clerk would answer unhappily. 'You remember, we spent it or paint to camouflage that last batch of Bomarcs.'

"By George, you're right!" the Receiver would say, 'Better sensomebody around to this chap's place to collect another \$100 in taxcs. No, by George, better make it \$105. After all, we've got to pay the blighter his interest."

"You see what you've done," Ted concluded. "You've paid out a total of \$205, and all you really got a your original \$100 back. You'd do better to buy your kid a flock of balloons. At least he might get a bang out of 'em."

"That's the screwiest bit of finar cial reasoning I ever came . against," I told him.

"Well sir, a man's entitled to his own opinion," he said huffily. "As for me, I'd sooner invest in somebody who is making something, or digging something out of the ground. That way there's at least a fighting chance of showing a profit."

I tried to explain that thousands and thousands of other taxpayers would help pay back that bond – even people like himself, who never bought any. But he wouldn't go for it. I guess some people are just naturally wooden-headed.

Sincerely,
PETE WILLIAMS

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